

LITTELL'S LIVING AGE.

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POETRY.

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TO SUMMER.

SUMMER, summer, lovely summer,
List, O list to what I say;
Is thy reign so quickly ended?
Canst thou, then, no longer stay?

Autumn cometh, crowned with glory;
What is that, I pray, to me?
All my soul the dearest loveth,
Summer, is entwined with thee.

'Mid thy green leaves' shimmering glory,
Waving in the balmy air,
Hope peers forth, with smile entrancing,
Tells me life is passing fair.

And the roses' bloomy petals
Whisper softly in mine ear
Breezy poems, sweet romances,
Tender songs I love to hear.

Velvet pansies, nodding near me,
Tell of happy, golden hours,
And some useful, heaven-taught lesson
Do I learn from all the flowers.

Waving ferns, by brooklets springing,
Perfumed lilies, fair of face,
Whisper low of modest virtue,
Purity and joy and grace.

With the spring my fond hopes budded,
And in thy rich loveliness
Have they grown, and bloomed and blossomed
Into ripest perfection.

And when autumn leaves are faded,
And the winds of winter blow,
Shall they, like thy peaceful beauty,
Hidden lie beneath the snow?

Summer, summer, lovely summer,
If thy parting hour is near,
Leave me peace and love and blessings,
Guardian angels for the year.

Summer, may thy memory linger
In my heart forevermore,
And, the dreary winter ended,
May I welcome thee once more.

Transcript.

K. M. K.

HOPE.

WITHIN the heart a merry bird
Poured out through life's dull toils its music
sweet;
What though one soul alone its warblings
heard,
And to itself its carols would repeat.

Tempest nor cold could drive the bird away—
Through leafless boughs still swept its tire-
less song;
Sadder, perhaps, when skies were lowering,
gray,
But with the rosy tints how loud, how long.

Hunger nor thirst could bid the bird depart,
Around for want's scant crumbs it warbling
flew;
In the forsaken chambers of the heart,
Through poverty, its lays the sweeter grew.

And when despair the cage wide open set,
Still did it linger, still it would not go—
Its daily welcome it could not forget,
It had its cheering notes even for woe!

And when affection's hand must loose its hold,
And loving accents fail the death-dulled ear,
Still in the heart its wings 't will softly fold,
Still will its song the passing spirit cheer.
Salem. LYDIA L. A. VERY.

Transcript.

JUST A FEW WORDS.

Just a few words, but they blinded
The brightness all out of a day;
Just a few words, but they lifted
The shadows and cast them away.

Oh! the pain of the wounds,
Of the harden'd word's sting;
Oh! the balm and the brightness
That kind ones will bring.

Only a frown, but it dampen'd
The cheer of a dear little heart;
Only a smile, but its sweetness
Check'd tears that were ready to start.

Sullen frowns—how they chill,
Happy smiles—how they lure
One to smile, one to raise,
One to kill, one to cure.

Oh that the rules of our living
More like to the golden would be!
Much, oh! so much more of sunshine
Would go out from you and from me.

Less profession, more truth,
In our every-day life,
More justice, then surely,
Lighter hearts and less strife.

For better and kinder we all mean to be,
But there's lack in the thinking of both you
and me.

Transcript.

GEORGIANA NOURSE.

From The Quarterly Review.

MODERN PHILOSOPHERS ON THE PROBABLE AGE OF THE WORLD.*

A SHORT time ago Sir William Thomson took occasion, at a meeting of the Geological Society of Glasgow, to make a somewhat startling statement. He said that the tendency of British popular geology was, at the time he spoke, in direct opposition to the principles of natural philosophy.

So strong an opinion expressed by the man who is, perhaps, foremost in this country in applied mathematics and natural science, naturally attracted great attention, and it is not too much to say that in the six years which have since elapsed a very great change has taken place in the views of those best able to form an opinion on the subject of Sir William Thomson's animadversions.

Whether or not we are correct in saying that such a change has actually taken place in educated public opinion it is the object of this paper to show; but we may at least affirm at the outset, without fear of contradiction, that a very smart conflict has been raging on the subject in the scientific world. The opposing forces are the geologists and the mathematicians. There has been hard hitting on both sides, and no quarter given. Of late the mathematicians have brought up their reserve, a contingent of natural philosophers, who have done good service. The latest intelligence from the seat of war speaks of a suspension of hostilities. The mathematicians will make no concessions, but the geologists appear likely to abate somewhat of their high demands. There is even some talk of an amalgamation of the opposing armies. In plain English, there

has been a dispute as to the age of the world. Geologists declared that the centuries of its duration could only be denoted by an array of figures so large as to paralyze the reasoning faculties and convey no definite impression to the mind. Other branches of science have shown cause for attributing to the solar system a limit of duration, vast indeed, but not absolutely inconceivable.

To those whose interest in such matters is literary rather than scientific, the progress of such a controversy is often very entertaining. It is true that the actual battles take place in places beyond our ken, generally at meetings of scientific societies, where the orators have it all their own way and confound their adversaries — till the opposition society meets. But though the philosophers retire for fighting-purposes, and do battle in the clouds with weapons, phrases, and formulæ, that we cannot understand, they always come down again to earth to proclaim their victories or palliate their defeats. Once they come down, and we catch them with pens in their hands, the outsiders have their turn.

It is not, however, in the great books of Darwin, Huxley, Lyell, Helmholtz, Tait, or Thomson, that we may seek food for amusement. In these works every thought is in full dress and every phrase decorous. But there is another sort of literature in which we see the great men, so to speak, with their coats off. The "Proceedings" of the learned societies where the real fighting goes on are full of entertainment. Students of human nature need no further proof that though every man may not be a philosopher, every philosopher is certainly a man. With what frank enjoyment they fight! With what irony — what sarcasm they annihilate their foes! It must, however, be confessed, that sarcasm is not, as a rule, the strong point of the learned. The editor of a northern newspaper of our acquaintance was one day speaking in terms of praise of his sub-editor: "The brilliancy of yon young man," said he, "is surprising; the facility with which he jokes amazes me. I, myself, am in the habit of joking, but I joke with difficulty." We have observed the same peculiarity

* 1. *Lectures on some Recent Advances in Physical Science.* By Professor P. G. Tait, Professor of Natural Philosophy in the University of Edinburgh. 1876.

2. *On Geological Dynamics.* By Sir William Thomson, LL.D., F.R.S. "Transactions of the Geological Society of Glasgow," 1869.

3. *On Geological Time.* By Sir William Thomson, LL.D., Geological Society of Glasgow. 1868.

4. *Sur le Ralentissement du Mouvement de Rotation de la Terre.* Par M. Delaunay. Paris, 1866.

5. *Climate and Time.* By James Collie. H.M. Geological Survey of Scotland. London, 1875.

6. *Principles of Geology.* By Sir Charles Lyell. Fourteenth Edition. London, 1875.

among other learned persons. They joke, but not with ease.

Most of the books which we have prefixed to this paper contain their authors' thoughts polished *ad unguem*. It would not be fair to judge of the opinions of the scientific persons we quote by any other standard than that which they have themselves carefully prepared; but yet we cannot refrain from entertaining a preference for the rough-and-ready, hard-hitting pamphlets, lectures, "proceedings," inaugural addresses, and the like, from which, almost without exception, these works have been compiled. For example, Mr. Croll's work on "Climate and Time" is everything which a scientific work should be that requires deep research and laborious thought, combined with the boldest generalization; but it is a digest of some five or six and thirty papers contributed to scientific magazines and periodicals during several years. Mr. Croll gives a list of his papers at the end of his volume. But though it is most convenient to see the whole before us at a glance, and to have them all under our hand or on the library shelf, yet we acknowledge that while thinking over Mr. Croll's volume, for the purposes of this review, we found ourselves again and again going back to the pages of the *Reader* and the *Philosophical Magazine*, in which we first made acquaintance with them. It may be prejudice in favor of old acquaintances, but we liked them better before. Digressions, perhaps, are cut out; some little rash speculation quietly withdrawn; some hit at an opponent suppressed; but they do not always command the same ready assent, or appear so interesting as they did in their old form.

These remarks do not apply to Professor Tait. His lectures now before us, from their nature, belong to the class of composition for which we avow our predilection. They were delivered extempore to a scientific audience, and printed from short-hand notes. They lose nothing of their vigor, to use an expression of Lord Macaulay, by translation out of English into Johnsesque. We are allowed to seize the thought in the making, and if it loses

anything in grace, the loss is more than counterbalanced by power.

Those who wish thoroughly to understand the subject of this paper should study Professor Tait's lectures on the sources of energy, and the transformation of one sort of energy into another. Matthew Arnold's phrase, "Let the mind play freely round" any set of facts of which you may become possessed, often recurs to the mind on reading these papers. There is a rugged strength about Professor Tait's extempore addresses, which taken together with their encyclopædic range, and the grim humor in which the professor delights, makes them very fascinating. They have another advantage. Men not professionally scientific find themselves constantly at a loss how to keep up with the rapid advance which has characterized recent years. One has hardly mastered a theory when it becomes obsolete. But in Professor Tait we have a reporter of the very newest and freshest additions to scientific thought in England and on the Continent, with the additional advantage of annotations and explanations by one of the most trustworthy guides of our time.

We propose to discuss the books and papers whose titles are prefixed to this article, in so far as they throw fresh light on the probable length of time during which the solar system may be supposed to have existed. It is but in recent times that any materials have been amassed for forming an opinion on the subject. Before the end of the last century geology hardly existed as a science; an inquiry as to the age of the world would have been unhesitatingly answered by the assertion, that the earth was created in six days, 4004 years before the birth of Christ. Though further research has shown that the sacred text bears no such interpretation, those copies of the authorized version of the Bible, which are enriched with notes and marginal references, still keep up the formal assertion.

A story is told in Brydone's "Tour in Sicily" which will serve to recall the state of public opinion on the subject of chronology at the end of the last century. The canonico Recupero, a Sicilian priest,

was Brydone's guide when he explored Mount Etna. Recupero (who afterwards wrote a history of his native mountain) told the traveller that he had been vastly embarrassed by the discovery that many strata of lava, each covered deeply with earth, overlaid each other on the mountain-side. "Moses," said he, "hangs like a dead weight upon me, for I have not the conscience to make the mountain so young as that prophet makes the world." "The bishop," adds Brydone, "who is strenuously orthodox—for it is an excellent see—has warned him to be on his guard, and not to pretend to be a better historian than Moses."

The worthy Bishop of Catania was not alone in his views. Nearer home it was the generally received opinion that to doubt the literal accuracy of the chronology supposed to be involved in the Mosaic account was a grave impiety. The poet Cowper, mildest of men, became fiercely satirical under the provocation of geology. Though few people read "The Task" nowadays, the lines will no doubt be remembered,—

Some drill and bore

The solid earth, and from the strata there
Extract a register by which we learn
That He who made it, and revealed its date
To Moses, was mistaken in its age.

Fortunately, it is no longer considered impious to try and "extract a register" from the earth. Those who were inclined to be afraid that the Mosaic record would be discredited have long since laid aside their fears. It has been found that, far from being upset by scientific inquiry, the Bible account of the creation accords in a very remarkable manner with modern discoveries; and long before Max Müller put the feeling into words, it was felt that only "by treating our own sacred books with neither more nor less mercy than the sacred books of other nations, they could retain their position and influence."

When once the plunge was made, it was soon found, as might have been expected, that the fault was not in the oracle, but in the interpretation; and it is very remarkable in how many and unexpected directions the testimony of Moses has been strengthened by the criticism, not always

friendly, which it has received. Of course, when the anciently accepted date of the creation was proved to be incorrect, and chronology was, as it were, thrown open to the public, there was nothing to prevent philosophers from allowing the freest scope to their imagination. In proportion as the six thousand years formerly assigned as the age of created matter was too small, the reaction of opinion claimed for it an antiquity which workers in other branches of physics feel it impossible to concede; and at the present moment there is among scientific men a revolt against the extreme views of the geologists. The latter affirmed with truth, that creation in six solar days was demonstrably untrue, not because God could not create the world at a stroke, but because the world bears ample evidence that he did not so exercise his power. It was inconsistent alike with reasoning from probability or the investigation of facts. In all the operations of nature as they unfolded themselves before our eyes God worked by law—by the process of slow development—by means beautifully simple, and involving no violence and no haste, yet irresistible. There was abundant evidence that these causes had been at work for thousands—perhaps millions—of years before the date of the supposed miracle. Beginning from the present age, the time was calculated that each development would require, till the united ages of all amounted to the enormous sum of three hundred millions of years.

Modern English geology holds that all geological changes have been effected by agents now in operation, and that those agents have been working silently at the same rate in all past times; that the great changes of the earth's crust were produced, not by great convulsions and cataclysms of nature, but by the ordinary agencies of rain, snow, frost, ice, and chemical action. It teaches that the rocky face of our globe has been carved into hill and dale, and ultimately worn down to the sea-level, not only once or twice, but many times over during past ages; that the principal strata of the rocks—hundreds and even thousands of feet thick—have been formed on ocean-floor beds by the slow

decay of marine creatures and matter held in solution by the waves; that every part of the earth has been many times submerged, and has again been lifted into the air. This slow rising and sinking of the ground is an axiom of the geological creed. We are told that it is now going on, and that there are large areas of subsidence and of elevation on the surface of the globe. But when we consider the slow rate at which that oscillation is now proceeding, and argue back from the known to the unknown, we are landed in conclusions as to the length of time required for geological changes which the opponents of the theory declare to be absolutely inadmissible.

Sir William Thomson, Professor Tait, and Mr. Croll, argue the question as one of geological dynamics. They find reason, in recent discoveries of science, to assert that the sun and the earth, from their physical condition, cannot possibly have existed for the enormous length of time supposed. Playfair, the founder of what is called the uniformitarian school of geology, declares on the other hand, that in the existing order of things there is no evidence either of a beginning or of an end. "In the planetary motions," he says, "where geometry has carried the eye so far both into the future and the past, we discover no mark either of the commencement or the termination of the present order. The author of nature has not given laws to the universe, which, like the institutions of men, carry in themselves the elements of their own destruction." This was a bold assertion: it was adopted with very little limitation by Sir Charles Lyell, and the later geologists—his disciples and contemporaries. Indeed, if they admitted any limitations at all, they placed the origin of the world so many hundreds of millions of years ago that the figures convey no practical idea to the mind, and amount in effect almost to what a distinguished geologist calls "*eternity à parte ante*."

The principal grounds upon which scientific opinion has recently declared itself in favor of limited periods for the duration of the solar system are based, first, on the belief that the earth is cooling—if not rapidly—at such a rate as to make it impossible that it should have existed for very many millions of years; secondly, because there is reason to believe that the earth is not now rotating on her axis with the same rapidity as in former ages, and that, as her shape would have been different if, at the time she was in a molten

state, she had been rotating more rapidly than now, she has not been rotating so long as has been supposed; thirdly, because the sun is parting with caloric at such a rate as to make it certain that he could not have continued to radiate heat at the same rate for more than a few millions of years; and lastly, because the changes in the earth's crust, stupendous and varied as they are, could have been, and probably were, accomplished in the course of much shorter periods than popular geology has hitherto considered possible.

It will, of course, be understood that any inquiry as to the date of creation must necessarily have relation only to the solar system—the sun, that is, and the planets which accompany the earth in its orbit round the central luminary.

The investigation is of necessity thus narrowed, because we have not, and cannot expect to have, any definite information as to the age of the rest of the visible universe. The stars are forever beyond our ken. If the spectroscope can bring intelligence of their component elements, it is as much as we can hope to attain. For their immeasurable distance effectually removes them from investigation. No action of gravity emanating from those distant luminaries affects the internal economy of the solar system. In the vast eternity of space the sun and his attendant satellites are altogether alone.

It is difficult to gaze upon the thousands of stars that brighten the night with their radiance and yet realize our entire isolation. The solar system, with the radius of its orbit stretching from the sun to farthest Neptune, is but a point in a vast solitude. No star is nearer to us than two hundred millions of millions of miles.

It is difficult, in dealing with such enormous numbers, to retain a definite impression on the mind. Our powers of conception are fitted rather to the wants of common life than to a complete survey of the universe.

Perhaps an intelligent may be substituted for a merely formal assent to these numbers, if they are considered on a greatly diminished scale. Consider the figures on the scale of one mile to 100,000,000. On that scale the sun's distance from the earth will be represented by nearly one mile. Let the sun be represented by a globe on the top of St. Paul's cathedral, and the earth by a little ball on the top of the clock-tower of the Houses of Parliament. The interior planets would revolve round St. Paul's as a centre; Mercury, at the distance of St. Clement's

Church in the Strand; Venus, at the distance of St. Martin's Church, Trafalgar Square; Mars would be at Lambeth Bridge; Jupiter, at Walham Green; Saturn, in the middle of Richmond Park; Uranus, a little nearer the centre than Slough; Neptune, a couple of miles short of Reading. The outermost planet of the solar system, then, would on this scale revolve in an orbit, comprising London and its neighborhood as far as Stevenage on the north, Chelmsford and Rochester on the east, and Horsham on the south.

On that same scale the nearest fixed star would be nearly as far away as the moon is in the actual heaven.*

This inconceivable remoteness shows that the sun and his satellites lie apart in space. They form one whole, interdependent on each other, but completely removed, as regards their internal economy, from the influence of any attraction outside.

There are reasons for concluding that the system, thus organized and isolated, was brought into existence by one continuous act of creative energy, and that, however long the period over which the process may have been spread, the whole solar system forms part of one creation; and though it has been sometimes thought that the earth was made by itself, and that the sun was introduced from outside space, or created where he is at a different time, the evidence is strong against such a supposition.

In the first place, the orbits of all the planets are nearly in one plane, and describe very nearly concentric circles. If, when they received the original impulse which sent them revolving round the sun, any of them had been started with a little more original velocity, such planets would revolve in orbits more elongated. If, therefore, they had been the result of several distinct acts of creation, instead of being parts of one and the same act of creation, their orbits would probably have been so many ovals, narrow and wide in all degrees, and intersecting and interfering with each other in all directions. Yet if this want of harmony had existed, even

to a small degree, it would have been sufficient to destroy the existing species of living creatures, and cause to disappear all security for the stability of the solar system. If the earth's orbit were much more eccentric than it is, all living creatures would die, for the extremes of heat and cold at different periods of the year would be fatal to life. If the orbit of Jupiter were as eccentric as that of Mercury, the attraction of the larger planet would cause the smaller to change their approximately circular orbits into very long ellipses; such would be the disturbance that they would fall into the sun or fly off into remote space. The moon would approach nearer and nearer to the earth with every revolution; the year would change its character; violent heat would succeed to violent cold; the planets would come nearer and nearer; we should see them portentous in size and aspect, glaring and disappearing at uncertain intervals; tides like deluges would sweep over whole continents; and finally the fall of the moon or one of the planets to the earth would result in the absolute annihilation of both of them.

Another reason for supposing that the solar system is the result of one separate act of creation is, that all parts of it are subject to one uniform law — that of gravitation. By that law every particle of matter attracts every other particle with a force directly proportionate to its mass. This force varies as the inverse square of the distance: that is, if the attractive force of a given mass at one mile were called 1, at two miles it would be $2 \times 2 = 4$, or $1/4$ of one, and so on. This law of the inverse square, as it is called, is but the mathematical expression of a property which has been imposed upon matter by the Creator. It is no inherent quality, so far as we know. It is quite conceivable that the central law might have been different from what it is. There is no reason why the mathematical fact should be what it is except the will of the Being who imposed the law. Any other proportion could equally well be expressed mathematically, and its results calculated. As an instance of what would occur if any other proportion than the inverse square were substituted as the attractive force of gravity, suppose, at distances 1, 2, 3, the attractive force had varied as 1, 2, 3, instead of the squares of those numbers. Under such a law any number of planets might revolve in the most regular and orderly manner. But under this law the weight of bodies at the earth's surface would cease to exist; nothing would fall

* On the scale of one mile to one hundred million miles: —

| | Miles. |
|--|------------|
| Mercury would be distant from the sun | 0'15 |
| Venus | 0'66 |
| The earth | 0'91 |
| Mars | 1'39 |
| Jupiter | 4'75 |
| Saturn | 8'71 |
| Uranus | 17'52 |
| Neptune | 27'43 |
| And α Centauri, the nearest fixed star | 206,560'00 |

or weigh downwards. The greater action of the distant sun and planets would exactly neutralize the attractive force of the earth. A ball thrown from the hand, however gently, would immediately become a satellite of the earth, and would for the future accompany its course, revolving about it in the space of one year. All terrestrial things would float about with no principle of coherence or stability—they would obey the general law of the system, but would acknowledge no particular relation to the earth. It is obvious that such a change would be subversive of the entire structure and economy of the world. From these and similar considerations, it follows that although other laws are conceivable under which a solar system might exist, the solar system, such as we know it, could only exist under the actual laws which have been imposed upon its motions. And this seems entirely to exclude the idea that the various bodies of the system could have been created at different times or brought together from different parts of infinite space. We may then safely conclude that the solar system is absolutely isolated in space, and is collectively the result of one act of creation. To the solar system, therefore, our inquiry is exclusively confined.

Although the received chronology of the world has for ages rested upon the supposed authority of the Bible, the sacred text really says nothing at all upon the subject. But, though the assertions which were so long made upon its supposed authority are not really contained in the Pentateuch, it is curious to observe how exactly the words of Moses appear to fit the most recent discoveries of science. No one has supposed that we were intended to learn science from the Bible; it is, therefore, an unexpected advantage to find that its short but pregnant sentences directly support the interpretation put by modern research upon the hieroglyphics of nature. Moses teaches, just as modern science teaches, that the starry heavens existed far back in past duration, before the creation of the earth. He describes in majestic words the "emptiness" of chaos, and the condition of affairs from which light arose. He describes the formation of the sun, and its gradual condensation into a "light-holder" to give light upon the earth, in terms that almost seem to anticipate Herschel and Laplace. Far from assigning any date to the creation, he is content to refer it to "former

duration." No date is either mentioned or implied.

The so-called chronology was derived from two lists, one extending from Adam to Noah, the other from Noah to Abraham. These lists purport to give the direct line of descent from father to son, and the age of each individual member of the genealogy at the time when the next in succession was born. As Adam was supposed to have been created six days after the commencement of the creation, it was simple work to add up the sum and fix the age of the world. As long as the progress of physical science showed no necessity for supposing a lengthened period to elapse between the creation of the world and the creation of man, it was taken for granted almost without discussion, that when God had created the heavens and the earth in the beginning, he at once set about the work of arranging them for the use of man; that he distributed this work over six ordinary days, and at the close of the sixth day introduced our first parent on the scene.

Nowadays, all divines, English and foreign, agree that the word employed by Moses, and translated in our Bible by "the beginning," expresses duration or time previous to creation. *Reshith*, the Hebrew word for beginning, is in the original used without the definite article. The article was expressly omitted in order to exclude the application of the word to the order of creation, and to make it signify previous duration or previous eternity. The words of Moses then, "In former duration God created the heavens and the earth," may mean millions of years just as easily as one. A few verses later, describing the second day of creation, Moses declares that God made the firmament and called it heaven. It is plain from this that the heavens of the first day's creation are different from the heavens of the second day; the difference of time proves a difference of subject. The heavens of the first verse were made in former duration, before the moving of the Spirit, before the creation of light; the heavens of the second day were made after the earth and after light.

Another statement made by Moses is an extraordinary anticipation of the most recent cosmological doctrines. "The earth was desolation and emptiness and darkness upon the face of the raging deep, and the Spirit of God brooding upon the face of the waters." It is now hardly doubtful that the earth was a molten

sphere, over which hung, in a dense vapor, all the water which now lies upon its surface. As the crust cooled, the aqueous vapor that surrounded it became condensed into water and rested on the surface of the land. The conflicts between the waters and the fiery heat, as the crust of the earth was broken, fell in, or was upheaved, are well described by the words of Moses, "The earth was desolation and emptiness." It is curious that the great facts of the submersion of the earth and its condition of emptiness should have been thus exactly described by Moses.

We are then told that God said, "Let there be light, and there was light." Celsus, Voltaire, and a writer in "Essays and Reviews" have found it strange that there should have been light before the creation of the sun; but according to the theory of cosmogony now almost universally received, the earth did in fact exist before the condensation of the sun. Light there would be, from the gradually condensing mass of nebulous and incandescent matter which occupied the whole space now circumscribed by the orbit of the earth. If Moses had wished to describe the modern doctrine concerning light, he could not have done so more happily. The sun is not called *ôr*, light, but *mabr*, a place of light, just what modern science has discovered it to be. If light be not matter, but vibrations of luminiferous ether, no words could more precisely explain what must have occurred when God set in motion the undulations which produced light, and said, "Let light be." The account given of the creation of the sun very closely anticipated modern science: "Let there be light-holders in the firmament of heaven, and let them be for light-holders in the firmament of heaven to give light upon the earth . . . and the stars." When the sun began to give his light, then, for the first time, the earth's fellow-planets, the stars, began to reflect his brilliance, and became luminaries also.

"Vestiges of Creation" was one of the first books which fairly awakened public interest in the debatable land which lies between that which is certainly known to science and that which must always defy inquiry. Before the appearance of that remarkable book, the theory that the sun and its attendant planets were produced by the condensation of a vast nebula, was but little known to the unscientific world. The idea was originally entertained by Sir William Herschel, and affords one of the greatest proofs of his commanding genius. It was afterwards elaborated by Laplace;

but that great astronomer was himself distrustful of it, and while he expounded the mechanical laws by which the proposed explanation could be supported, he was careful to speak of it only as an hypothesis. As time goes on, it seems probable that the saying of Arago will be accepted, and that the views of Laplace will be universally acknowledged to be "those only which, by their grandeur, their coherence, and their mathematical character, can be truly considered to form a physical cosmogony."

But though Laplace is thus credited by Arago with the origination of this grand conception, he was not its author. Sir William Herschel gave the earliest sketch of the theory. His views were expressed with so much precision, that one cannot help feeling a little jealousy for the prior right of discovery of the English astronomer. Herschel so plainly preceded Laplace, that it seems hard that Laplace should have the credit of it. Herschel began to search after nebulae in 1779, and soon formed a catalogue comprising an enormous number of them. By degrees it dawned upon his mind that the differences he observed in them were systematic, and at length occurred the magnificent intuition that the nebulae are stars in process of formation.

They lie in enormous numbers in every part of the heavens, and apparently in every stage of progressive development. The slow growth of worlds, extending over ages of time, cannot, of course, be watched by any single observer. No more can a single tree among the trees of a forest be so observed. But a forest contains specimens of saplings, young trees, trees of vigorous growth, and trees in decay. In like manner the heavens contain specimens of worlds in the making, from the chaotic mass of vapory matter which forms the first stage of cosmical existence to the perfect, self-luminous star. Herschel arranged them in classes showing this gradual development, and he declares that each class is so nearly allied to the next, that they do not differ so much as would the annual description of a human figure, if it were given from the birth of a child till he comes to be a man in his prime. His catalogue arranges the objects he has actually observed somewhat in the following fashion: first, patches of extensive diffused nebulosity; "milky nebulosity," with condensation; round nebulae; nebulae, with a nucleus; and so on till he reaches stellar nebulae, nearly approaching the appearance of stars.

The evidence grows irresistible as we read, that in these wonderful objects we are gazing at works in process of formation as they lie plastic under the creative hand of the Almighty. Nor is it possible to withhold the inference—thus probably was the world we live in, and the solar system of which we form a part, evolved out of chaos.

The labors of Laplace commenced where Herschel ended. Herschel described what he saw. Laplace showed by mathematics how the known laws of gravitation could form, and probably did form, from such partially condensed mass of matter an entire planetary system.

It is supposed that a film of vaporous matter filled up the space which is now bounded by the orbit of the outermost planet of our system. To the eye of an observer, if such there were, in a distant star, such a vapor would appear like one of the numerous nebulae which are everywhere visible in the heavens.

Laplace supposed that this nebula, extending beyond what is now the orbit of Neptune, possessed a rotatory motion round its centre of gravity, and that the parts of it which were situated at the limits where the centrifugal force exactly counterbalanced the attractive force of the central nucleus, were abandoned by the central mass. Thus, as the nucleus became more and more dense under the action of gravity, were formed a succession of rings concentric with and revolving round the centre of gravity. Each ring would break up into masses which would be endued with motions of rotation, and would in consequence assume a spheroidal form. These masses formed the various planets, which in their turn condensing, cast off in some instances their outlying rings, as the central mass had done, and thus formed the moons or satellites which accompany the planets. As each planet was in turn cast off, the central mass contracted itself within the orbit of that last formed; till, after casting off Mercury, it gathered with immense energy round its own centre and formed the sun.

Laplace's mechanical explanation does not rest only on theory. It has been experimentally shown that matter under certain conditions would exhibit phenomena similar in many important particulars to those which Laplace was led by mathematical considerations to suppose. Professor Plateau, several years ago, tried the experiment of pouring olive oil into alcohol and water, mixed in such proportions as exactly to equal the density of the oil.

The oil thus became a liquid mass relieved from the operation of gravity, and free to take any exterior form which might be imposed by such forces as might be brought to bear upon it. The oil instantly took the form of a globe by virtue of molecular attraction. Professor Plateau then introduced a wire into the globe of oil in such a manner as to form for it a vertical axis. The wire had on it a little disc coincident with the centre of the globular mass, and by turning the axis the oil was made to revolve. The sphere soon flattened at the poles and bulged out at the equator, thus producing on a small scale an effect which is admitted to have taken place in the planets. The experiment has since been several times repeated. When the rotation becomes very rapid, the figure becomes more oblately spheroidal, then hollows out above and below round the axis of rotation, stretches out horizontally until finally the outside layer of oil abandons the mass and becomes transformed into a perfectly regular ring. After a little while the ring of oil losing its own motion gathers itself once more into a sphere. As often as the experiment is repeated the ring thrown off immediately takes the globular form. These are seen to assume at the instant of their formation a movement of rotation upon themselves, which takes place in the same direction as that of the ring. Moreover, as the ring at the instant of its rupture had still a remainder of velocity, the spheres to which it has given birth tend to fly off at a tangent; but as on the other side, the disc, turning in the alcoholic liquor, has impressed on the liquor a movement of rotation, the spheres are carried along and revolve for some time round the disc. Those which revolve at the same time upon themselves "present the curious spectacle of planets revolving at the same time on themselves and in their orbit." Another curious result is almost always exhibited in this experiment. Besides three or four large spheres into which the ring resolves itself, there are almost always two or three very small ones which may thus be compared to satellites. The experiment presents, therefore, an image in miniature of the formation of the planets according to the hypothesis of Laplace, by the rupture of the cosmical rings attributable to the condensation of the solar atmosphere.

Modern discoveries carry the matter on much further. Recent investigations into the doctrine of the conservation of energy, have shown the generation of cosmical

heat. The amount of force comprised in the universe, like the amount of matter contained in it, is a fixed quantity, and to it nothing can either be added or taken away. It is therefore constantly undergoing change from one form to another. If it ceases in one form it is not destroyed, it is converted. The blow of a hammer on an anvil sets a certain amount of energy in motion. The anvil stops the blow, but the force changes into heat. Hammer a nail and it will burn your fingers. Apply a brake to a wheel and you will stop the motion, but the force will be changed into heat which will burn you if you touch the brake. Measure the hammered nail and you find that it has expanded by the vibration of its particles; heat it still more, and the particles will overcome the attraction of cohesion and revolve about each other, that is, they will become molten; heat them still more and they will assume the vaporous or gaseous form. Now seeing that motion was convertible into heat, and heat into motion, it became an object of inquiry what was the exact relation between the two. Dr. Mayer in Germany, and Dr. Joule in England, set themselves to the solution of this problem. By various experiments it was demonstrated, that every form of motion being convertible into heat, the amount of heat generated by a given motion may be calculated. If the particles of a vast vaporous mass were brought into collision from the effect of their mutual attraction, intense heat would ensue. The amount of caloric generated by the arrest of the converging motion of a nebula like the solar system would be sufficient to fuse the whole into one mass and store up a reserve of solar heat for millions of years.

Such, then, is the most probable conjecture respecting the origin of our system. We now turn to consider the grounds on which attempts have been made to fix the probable date of its creation. It will be convenient to examine the views of modern geologists on the subject, and the objections, based on recent results of physical science, which natural philosophers have adduced against their speculations.

The great representative, in late years, of British geology, is the late Sir Charles Lyell. But a few months before his death he published the new edition of his "Principles of Geology," the title of which we have placed at the head of this paper. While he lived he bestowed upon the correction of his works unwearied labor. Edition after edition was called for, and in

each whole passage — sometimes whole chapters — were remodelled. A quotation from one of the earlier editions may not improbably be searched for in vain in those which subsequently left his hands; and there are not wanting instances in which an opinion, contested by competent adversaries, was quietly dropped without any formal parade. His judgment was always open to appeal, and his clear and manly intellect acknowledged no finality in matters of opinion; therefore, on matters which we know to have been brought before him, with their accompanying evidence, we may consider ourselves as possessing his final verdict. It would not be fair, when quoting, as we must do, comments unfavorable to some of the conclusions at which Sir Charles Lyell arrived, to refrain from acknowledging the care with which his opinions were formed, and the candor with which they were surrendered if ever his better judgment considered them untenable. For instance, as head of the uniformitarian school, he was exceedingly anxious that the evidence for his favorite doctrine should be duly and impartially weighed. With this view he advocated, in his "Principles of Geology,"* "an earnest and patient endeavor to reconcile the indications of former change with the evidences of gradual mutations now in progress."

Upon this remark Dr. Whewell † fell with merciless severity: "We know nothing," says he, "of causes; we only know effects. Why then should we make a merit of cramping our speculations by such assumptions? Whether the causes of change do act uniformly; whether they oscillate only within narrow limits; whether their intensity in former times was nearly the same as it is now: these are precisely the questions which we wish science to answer us impartially and truly. Where, then, is the wisdom of 'an earnest and patient endeavor' to secure an affirmative reply?"

This was rough handling of a pet theory, or, rather, of an argument in favor of a pet theory; but that Sir Charles Lyell felt its force, is shown by the fact that no trace of the appeal attacked by Whewell appears in such later editions of the "Principles" as we have consulted.

As another instance of the same spirit, the following remark was made by Dr. Hooker, the president of the Royal Society, when addressing the British Association

* Lyell, b. iv., p. 328, fourth edition.

† History of the Inductive Sciences, b. viii., sec. 2. Edit. 1857.

at Norwich. He was speaking of the progress made in public estimation by the theories of Mr. Darwin. "Sir Charles Lyell," he says, "having devoted whole chapters of the first editions of his 'Principles' to establishing the doctrine of special creations, abandons it in the tenth edition. I know no brighter example of heroism, of its kind, than this, of an author thus abandoning late in life a theory which he had for forty years regarded as one of the foundation stones of a work that had given him the highest position attainable among contemporary scientific writers."

Among eminent persons holding the geological opinions, to which the name of catastrophism has been given, the name of the late master of Trinity must occupy a foremost place. The words in which he avows his opinion are remarkable, not only for their exquisite beauty, but because they have a peculiar significance as almost the last utterance of a great man. The passage which follows* occurs in the third of a series of sermons preached in the University Church at Cambridge, in 1827. But it is curious to learn, from his memoirs, published this year, that he again used the same words in his college chapel just before his death.

Let us not deceive ourselves. Indefinite duration and gradual decay are not the destiny of this universe. It will not find its termination only in the imperceptible crumbling of its materials, or the clogging of its wheels. It steals not calmly and slowly to its end. No ages of long and deepening twilight shall gradually bring the last setting of the sun—no mountains sinking under the decrepitude of years, or weary rivers ceasing to rejoice in their courses, shall prepare men for the abolition of this earth. No placid euthanasia shall silently lead on the dissolution of the natural world. But the trumpet shall sound—the struggle shall come—this goodly frame of things shall be rent and crushed by the arm of its omnipotent Maker. It shall expire in the throes and agonies of some fierce convulsion; and the same hand which plucked the elements from the dark and troubled slumbers of chaos shall cast them into their tomb, pushing them aside that they may no longer stand between his face and the creatures whom he shall come to judge.

Holding these opinions, and believing as Professor Whewell did that the upheavals and subsidence of strata which characterize the earth's crust, were produced suddenly, and by violent agencies,

the school to which he belonged were little likely to attempt to fix a date for the creation of the world. To their minds the facts of geology gave no evidence as to time. It is, therefore, to Sir Charles Lyell and his followers that we must turn for an estimate of duration drawn from the "testimony of the rocks."

It is impossible to deny that periods of very vast duration must have elapsed while the changes took place of which we see the traces. If, for instance, we search below the sand on English shores, we find, perhaps a bed of earth with shells and bones; under that, a bed of peat; under that, one of blue silt; under that, a buried forest, with the trees upright and rooted; under that, another layer of blue silt, full of roots and vegetable fibre; perhaps under that again, another old land-surface with trees again growing in it; and under all, the main bottom clay of the district. In any place where boulder clay crops out at the surface—in Cheshire or Lancashire, along Leith shore near Edinburgh, or along the coast at Scarborough—it will be found stuffed full of bits of different kinds of stone, the great majority of which have nothing to do with the rock on which the clay happens to lie, but have come from places many miles away. On examining the pebbles, they will prove to be rounded, scratched, and grooved, in such fashion, as to show that at some period they have been subjected to a grinding force of immense violence. Among the pebbles in the clay, and on plains far away from mountains, are found great rocks of many tons in weight. They were carried on the backs of icebergs, which, at some time, covered the now temperate regions of the earth, and were dropped by the melting ice either in the shape of pebbles, as moraines of ancient glaciers, or as boulders stranded when the icebergs melted in the lowlands.

Such evidence points to vast periods of more than Arctic winter, which must have endured for many thousand years. But in close juxtaposition with these glacial shells and pebbles lie remains which tell of tropical climates that alternated with the dreary ages of ice. Fossil plants and the remains of animals prove that all northern Europe was once warmer than it is now; that England bore the flora and fauna of the torrid zones. Underneath London there lies four or five hundred feet of clay. It is not ice clay; it belongs to a later geological formation, and was, in fact, the delta of a great tropical river. The shells in this clay are tropical. Nautili, cones, fruits and seeds of nipa palms, now

* Sermons in the University Church at Cambridge, 18th February, 1827.

found only at Indian river-mouths; anona-seeds, gourd-seeds, acacia-fruits. The bones, too, of crocodiles and turtles; of large mammals allied to the Indian tapir, and the water hog of the Cape. All this shows that there was once, where London stands, a tropical climate, and a tropic river running into the sea. We find in it the remains of animals which existed before the ice age. The mammoth, or woolly elephant, the woolly rhinoceros, the cave lion, the cave bear, the reindeer, and the musk ox, inhabited Britain till the ice drove them south. When the climate became tolerable again, the mammoth and rhinoceros, the bison and the lion, reoccupied our lowlands; and the hippopotamus from Africa and Spain wandered over the plains where now the English Channel flows, and pastured side by side with animals which have long since retreated to Norway and Canada.

When the ages necessary for all these changes is allowed for, we have not, even yet, got beyond the latest period into which the history of the globe has been divided. Under the tertiary deposits lies the chalk, a thousand feet in thickness, which is composed of the shells of minute animals, which must have been deposited age after age at the bottom of a deep and still ocean, far out of reach of winds, tides, or currents. Recent dredgings in ocean depths have proved beyond a doubt that the greater part of the Atlantic Sea floor is now being covered by a similar deposit. It must have taken ages to form, and, if the geologists are right in their estimate of the slow rate of upheaval, many more ages to become elevated above the ocean bed where it lay. Not only once, but many times, the chalk was alternately above and beneath the waves. It is separated by comparatively thin and partial deposits of sand and clays, which show that it has been at many different points in succession a seashore cliff. The chalk is not flat as it must have been at the seabottom, it is eaten out into holes by the erosion of the sea waves, and upon it lie flints, beds of shore shingle, beds of oysters lying as they grew, water shells standing as they lived, and the remains of trees. Yet, again, there lie upon the chalk sands, such as those of Aldershot and Farnham, containing in their lower strata remains of tropical life, which disappeared as the climate became gradually colder and colder, and the age of ice once more set in. Everywhere about the Ascot Moors the sands have been ploughed by the shore-ice in winter, as they lay awash in the shallow

sea, and over them is spread in many places a thin sheet of ice-borne gravel. All this happened between the date of the boulder clay and that of the new red sandstone on which it rests.

We need not follow the geologist through the lower systems which overlie the metamorphic rock. The oolite contains remains of plants and animals now extinct, the most remarkable being huge reptiles; the triassic has fossils like the oolite; and the Permian has remains like those in the coal on which it rests. Then follow the coal measures, the fossil remnants of tropical vegetation; the old red sandstone, with fossils principally of fishes and shells; the Silurian, in which are found the earliest forms of life; and, lastly, the hard and crystalline rocks, devoid of fossils, which are supposed to be the earliest constituent mass of our planet.

Sir Charles Lyell and his followers allege that the rate at which species of animals change is tolerably uniform. The fossils of one age differ but little from those of ages immediately preceding and following it. We must go back, he says, to a period when the marine shells differ as a whole from those now existing to form one complete period. Counting back in stages measured by changes of fossils, we have four such stages in the tertiary formations above the chalk.

Lyell saw reason to believe, on evidence which we shall presently examine, that the age of ice commenced about a million of years ago. The place of this age of ice among the series of fossil-changes is easily marked, and so he concludes that each of his four periods above the chalk "would lay claim to twenty millions of years." We must allow Sir Charles to work up to his stupendous conclusion in his own words:—

The antecedent Cretaceous, Jurassic, and Triassic formations would yield us three more epochs of equal importance to the three Tertiary periods before enumerated, and a fourth may be reckoned by including the Permian epoch with the gap which separates it from the Trias. In these eight periods we may add, continuing our retrospective survey, four more, namely the Carboniferous, Devonian, Silurian, and Cambrian; so that we should have twelve in all, without reckoning the antecedent Laurentian formations which are older than the Cambrian. . . . If each therefore of the twelve periods represents twenty millions of years on the principles above explained, we should have a total of two hundred and forty millions for the entire series of years which have elapsed since the beginning of the Cambrian period.

Eighty millions since the lower tertiary formation, one hundred and sixty millions since the formation of the coal measures, and two hundred and forty millions since the beginning of the Cambrian period! And beyond that inconceivable antiquity lie the whole range of the primary rocks which contain no fossils.

Mr. Darwin * assigns to the world even a greater age. "In all probability," he says, "a far longer period than three hundred millions of years has elapsed since the latter part of the secondary period." Other geologists exceed even this estimate. Mr. Jukes, for instance, after referring to this passage, in which Mr. Darwin has given an estimate of the length of time necessary for wearing down the space between the North and South Downs, declares it is just as likely that the time which actually elapsed since the first commencement of the erosion; till it was nearly as complete as it now is, was really a hundred times greater than his estimate, "*or thirty thousand millions of years*"!

To any one but a professed geologist, it would almost seem as if these ideas of geological periods had been framed on the principle which guided Mr. Montague Tigg in fixing the capital of the Anglo-Bengalee Disinterested Loan and Life Insurance Company. "What," asked the secretary, "will be the paid-up capital according to the next prospectus?" "A figure of two," says Mr. Tigg, "and as many noughts after it as the printer can get into the same line."

It is hard for imagination to compass the meaning of a million, and when that number is multiplied by hundreds, the effort is altogether beyond us. But we need not dwell on this consideration; we turn at once to the practical comments made by physical science on these and such-like opinions. The first is founded on the secular cooling of the earth.

If a red-hot ball be taken from a furnace, it begins at once to part with heat at a certain definite rate. As it becomes colder it cools more and more slowly. From the known laws of heat it is quite possible roughly to approximate to the period during which the earth has been habitable for animals and plants such as we now find upon it. Whenever a body is hotter at one part than at another, the tendency of heat is to flow from the hotter body to the colder. As the earth's crust is warmer as we go further down, there must be a steady increase of heat from the

surface to the centre, and the earth is even now losing heat at a perfectly measurable rate; therefore it is possible to calculate what was the distribution of heat a hundred thousand or a thousand thousand years ago, supposing the present natural laws to have been then in existence. According to these data, about ten millions of years ago the surface of the earth had just consolidated, or was just about to consolidate; and in the course of comparatively few thousand years after that time the surface had become so moderately warm as to be fitted for the existence of life such as we know it. If we attempt to trace the state of affairs back for a hundred millions instead of ten millions of years, we should find that the earth (if it then existed at all) must have been liquid, and at a high white heat, so as to be utterly incompatible with the existence of life of any kind with which we are acquainted.*

The next argument, namely, that founded on the earth's retardation by the tidal wave, is more recondite, and the theory that there is such a retardation at all is quite of recent date. Theoretical reasons connected with mechanics caused it to be adopted, and its establishment depends on the most refined astronomical investigation.

It is one of the peculiarities of time-measurement, that from the nature of things no two periods of time can be compared directly one with another. The standards by which we measure time are less and less precise as we recede further into the past. To-day we have as the standard unit of duration the interval between two successive transits of a star over the cross-wires of a fixed observatory telescope. This measure has been considered until lately as absolutely fixed and invariable. And so it is for all practical purposes; the sidereal time of any heavenly body passing the meridian on a given day in 1880, may be ascertained from the "Nautical Almanac" to-day, and it will be found true within one hundredth of a second. But that throws no light on the question what is the absolute length of an hour or a second. They are both definite fractions of a day; and a day is a revolution of the earth on its axis; no artificial measurement of such an interval can prove whether the interval itself remains from age to age unchanged. To quote Humboldt as a sure guide to the received opin-

* "The Doctrine of Uniformity in Geology briefly refuted." Proceedings of the R. Soc. Edinburgh, Dec. 1865.

* Origin of Species. Edition 1859, p. 287.

ions of scientific men thirty years ago,* "The comparison of the secular inequalities in the moon's motion, with eclipses observed by Hipparchus, or during an interval of two thousand years, shows conclusively the length of the day has certainly not been diminished by one hundredth part of a second."

The assertion is derived from Laplace, and even now is mentioned as an unquestioned fact in the most recent astronomical text-books. Halley it is true, in 1695, discovered that the average velocity with which the moon revolves round the earth had apparently been increasing from year to year, and this acceleration remained unexplained during more than a century. Halley compared the records of the most ancient lunar eclipses of the Chaldean astronomers with those of modern times. He likewise compared both sets of observations with those of the Arabian astronomers of the eighth and ninth centuries. The result was an unexplained discrepancy, which set all theory at defiance for a century or more. It appeared that the moon's mean motion increases at the rate of eleven seconds in a century; and that quantity, small in itself, becomes considerable by accumulation during a succession of ages. In twenty-five hundred years the moon is before her calculated place by $1\ 1-2^\circ$ —enough to make a very material difference in place of visibility of a solar eclipse. Laplace at last, as Sir John Herschel says, stepped in to rescue physical astronomy from its reproach, by pointing out the real cause of the phenomenon. Laplace accounted for the apparent acceleration by showing that the motion of the earth in her orbit was disturbed by the other planets, in a manner before insufficiently appreciated, and the explanation was accepted for many years as complete and satisfactory. The acceleration was calculated to the utmost point of precision attainable in mathematics by MM. Damoiseau and Plana. Using the formulæ of Laplace, and the numbers deduced from them, it was found that the circumstances and places of ancient eclipses, as recorded by historians, were brought into strict accordance with the times and circumstances as they ought to have been if the theory were true. Laplace's explanation rests upon the fact, that for many thousands of years past the orbit of the earth has been tending more and more to a perfect circle: that is, the minor axis is increasing while the major

axis remains unchanged. The result is, that the average distance of the moon from the sun is greater than it was in past ages. But in proportion as the moon is released from the sun's influence she revolves faster round the earth.

When it was seen how completely the difficulties in ancient observations were explained away by the calculations of Laplace, all doubt was considered to be at an end, and astronomers supposed that the whole truth was known. But in 1853 it occurred to Professor Adams to recalculate Laplace's investigations, and the result was the detection of a material error, which vitiated the whole series of observations. The results of Professor Adams's calculations were submitted to the Royal Society* in a paper, the explanatory part of which is very short indeed, occupying but a couple of pages of the "Proceedings." The brief statement is followed by a corroborative sea of high mathematics, into which we have no intention of asking the reader to plunge. The result, roughly stated, was to halve the amount of acceleration calculated by Laplace, and thus to leave half the acceleration of the moon necessary for his explanation of ancient eclipses to be found in some other way. Astronomers were now in a condition almost as bad as that from which they had been rescued by Laplace.

Adams communicated his final result to M. Delaunay, one of the great French mathematicians; and it seems to have been during the investigations which that astronomer undertook to verify the calculations of Adams, that it occurred to him to inquire whether our measure of time itself remains unchanged. In other words, whether the earth itself may not be rotating more slowly, instead of the moon more quickly, than in bygone ages. It is plain that the moon will appear to be moving more quickly round the earth, if the earth itself—which is furnishing the standard by which the moon's revolution is to be measured—is rotating more and more slowly from age to age.

Newton laid it down in his first law of motion, that motion unresisted remains uniform forever; and he gave as an instance of constant motion, unaffected by any external causes, this very rotation of the earth about its axis. But M. Delaunay remembered that Kant had pointed out the resistance which the earth must incur from the tide-wave, and had even approximately calculated its amount. The

* *Cosmos*, i. 161.

* June 16, 1853.

tidal wave is lifted up towards the moon, and on the side of the earth opposite the moon; so that as Professor Tait puts it, the earth has always to revolve within a friction-brake. Adams adopted this theory of tidal friction; and in conjunction with Professor Tait and Sir William Thomson, assigned twenty-two seconds per century as the error by which the earth would in the course of a century get behind a thoroughly perfect clock (if such a machine were possible).

It may be asked, if the earth's movement be diminishing gradually in rapidity, will it eventually stop altogether? No; if ever the earth shall so far yield to the action of the tidal wave as to rotate not more rapidly than the moon, she will present to the moon always the same part of her surface. Then the liquid protuberance directed towards the moon will no longer be a cause of delay, and the retardation will cease. This cessation of effect, owing to the cause having ceased, appears to have actually happened with regard to the moon herself. At some time the moon's crust, and, indeed, her whole substance, was in a molten state. Enormous tides must have been produced by the attraction of the earth in this viscous mass of molten rock, and the time of the moon's rotation must have been quickly compelled, by the friction, to become identical with the time of its revolution round the earth, and now, as is well known, the moon always presents to the earth the same side of her sphere.

It being thus established that there is retardation of the earth's motion, and the amount of retardation being calculated, it remains only to inquire how the fact affects the question of the world's age. We know that the flattening at the poles and bulging at the equator is the result of rotation; from the amount of retardation it can be calculated how fast the earth was rotating in bygone ages. Two thousand millions of years ago she would, according to such calculation, have been revolving twice as fast as at present, and the amount of centrifugal force at the equator would have been four times as great as now. If the earth, subjected to such strong centrifugal force, had been liquid or even pasty, when it began to rotate, the equatorial protuberance would have been much greater than it is. It therefore follows that she was rotating at about the same rapidity as now, when she became solid, and as the rate of rotation is certainly diminishing, the epoch of solid-

ification cannot be more than ten or twelve millions of years ago.

A third argument for restricted periods is founded on an examination of the question, how long can the sun be supposed to have kept the earth, by its radiation, in a state fit to support animal and vegetable life? Here, as might be expected, a wider range of opinion exists.

It will be conceded at once that the age of organic life upon the earth must, of necessity, be more recent than the age of the sun. The several theories as to the way in which the sun may have derived his heat, may be put aside in favor of that of Helmholtz, viz., that the sun has been condensed from a nebulous mass, filling at least the entire space at present occupied by the whole solar system. The gravitation theory of Helmholtz is now generally admitted to be the only conceivable source of the sun's heat. The opinion that it can be obtained from combustion is not tenable for a moment. The amount of heat radiated is so enormous, that if the sun were a mass of burning coal, it would all be consumed bodily in five thousand years!*. On the other hand, a pound of coal falling on the surface of the sun from an infinite distance, would produce six thousand times more heat from concussion than it would generate by its combustion. An idea of the amount of energy exerted by one pound weight falling into the sun, will be conveyed by stating that it would be sufficient to hurl the "Warrior," with all its stores, guns, and ammunition, over the top of Ben Nevis!† But, if we accept gravitation as the source of energy, we accept a cause, the value of which can be mathematically determined with very considerable accuracy.

The amount of heat given off by radiation in a year,‡ is known; the total amount of work performed by gravitation in condensing a nebulous mass to an orb

* To maintain the present rate of radiation, it would require the combustion of 1500 lbs. of coal on every square foot of the sun's surface, per hour. — *Croll*, 346.

† The velocity with which a body falling from an infinite distance would reach the sun would be equal to that which would be generated by a constant force equal to the weight of the body at the sun's surface operating through a space equal to the sun's radius. One pound would at the sun's surface weigh about 28 lbs. Taking the sun's radius at 441,000 miles, the energy of a pound of matter falling into the sun from infinite space would equal that of a 28-lb. weight descending upon the earth from an elevation of 441,000 miles, supposing the force of gravity to be as great at that elevation as it is at the earth's surface. It would amount to upwards of 65,000,000,000 foot-pounds.

‡ The total amount radiated from the whole surface of the sun per annum is 8,340x10³³ foot-pounds. — *Croll* 346.

of the sun's present size, is known. The result is, that the amount of heat thus produced by gravitation would suffice for about twenty millions and a quarter of years. This is on the assumption that the nebulous matter composing the sun was originally cold, and that heat was generated in it by the process of condensation only. It is, however, quite conceivable that the nebulous mass possessed a store of heat previous to condensation, and that the very reason why it existed in the gaseous condition was that its temperature was excessive. The particles composing it would have had a tendency, in virtue of gravitation, to approach one another if they had not been kept apart by the repulsive energy of heat; it is not then unreasonable to suppose that the attenuated and rarified mass was vaporous by reason of heat, and began to condense only when its particles began to cool. By the known laws under which heated gases condense, the amount of heat originally possessed by the gas bears a definite and known proportion to the amount of heat generated by condensation; and, on the assumption that the analogy holds good in the case of the sun, which holds in the condensation of other heated gases, nearly fifty millions of years' heat must have been stored up in the mass as original temperature. This, added to the twenty and a quarter millions which resulted from gravitation, gives rather more than seventy millions of years' sun-heat.

As, however, this quantity gives the total amount of heat given out by the mass since it began to condense, the earth could not have had an independent existence till long after that time. The sun must have had time to condense from its outer limits as a nebula, to within the limit of the earth's orbit, before that separate existence could begin; for before then the earth must have formed part of the fiery mass of the sun. This calculation, like the others, falls short by nearly two hundred millions of years of the period estimated by Sir Charles Lyell for the commencement of life upon the earth.

But it would not be satisfactory to see a theory upset, if with the theory the means of accounting for observed facts were also destroyed. One great reason which weighs with geologists in assigning an almost incalculable age to the earth, is that among the fossils of the latest glacial epoch there are found the remains of tropical plants and animals, deposited in alternate strata with the remains of temperate climates, and this not once, but many times over. A hot climate prevailed at one

time, and the earth became peopled with the flora and fauna appropriate to those conditions; after a lapse of many ages, the land subsided, and became the bed of the ocean; a vast period of upheaval then ensued, and dry land once more appeared; the climate gradually changed and ice set in; after ages more there was another slow subsidence, another equally slow upheaval, and another change of climate; and so on without end. Seeing the slow way in which the land sinks or is upheaved nowadays, it naturally appeared that no conceivable lapse of time could be enough to explain that which had obviously taken place.

Mr. Croll, however, has recently afforded an explanation at once beautiful, simple, and complete. About the facts to be accounted for there can be no doubt. The land has been many times under the sea, and the most violent changes of climate have succeeded one another. Mr. Croll's explanation is partly astronomical, and partly rests on geological dynamics. The heat of the sun is great in proportion to his distance from the earth. This distance is greater at one time of year than another. The orbit of the earth is not quite circular, but its eccentricity varies slowly from century to century. It is just now very small, and the summer of the northern hemisphere happens when the earth is at its greatest distance from the sun. Both these circumstances tend to produce in Europe a moderate climate. But the longitude of the perihelion, as this state of things is called, is constantly changing, and the line joining the solstices moves round the orbit in about twenty-one thousand years. It follows that every ten thousand years, or thereabouts, the winter of the northern hemisphere will occur when the earth is at its farthest from the sun; and if at that time the earth's orbit is very eccentric, the two causes combined will produce a very severe climate. Eleven thousand years hence the northern hemisphere will be nearest to the sun in summer, and farthest from him in winter. Now if when that state of things occurred, the eccentricity of the earth's orbit happened to be very great—if the earth in winter-time was at a part of her orbit several millions of miles farther from, and in summer-time was very much nearer, the sun than she is now, the climate of the northern hemisphere would be very different from what it is.

One such period of great eccentricity occurred about two million five hundred thousand years ago. Fifty thousand years

later there was another. Again, eight hundred and fifty thousand years ago there was a third, and two hundred thousand years ago a fourth. Those periods were characterized by cold such as we have no conception of. More than Arctic winter lingered far on into the spring, and unmelted ice of one year accumulated through the next, till from the pole to the south of Scotland the earth was covered with a vast ice-cap, probably several miles in thickness.

Now, in Europe and America, wherever in fact any records are left of the glacial epoch, it is remarked that a general subsidence of the land followed closely on the appearance of the ice. This fact led certain geologists to conclude that there was some physical connection between the two phenomena, and Mr. Jamieson suggested to the Geological Society that the crust of the earth might have yielded under the enormous weight of the ice. Mr. Croll, however, gives a different explanation; and the more it is understood the more it appears to gain ground with those capable of forming an opinion. He says that the surface of the ocean always adjusts itself in relation to the earth's centre of gravity, no matter what the form of the earth happens to be. If a large portion of the water of the ocean were formed into solid ice, and placed round the north pole, its weight would naturally change the centre of gravity of the earth. The centre would be changed a little to the north of its former position. The water of the ocean would then forsake its old centre, and adjust itself with reference to the new. The surface of the ocean will therefore rise towards the north pole and fall towards the south. The land will not sink under the sea, but what amounts to the same thing, the sea will rise upon the land. The extent of submergence will be in proportion to the weight of the ice.

It is easy to see that glaciation would not be contemporaneous on both hemispheres. One hemisphere would be covered with ice and snow, while the other would be enjoying a perpetual spring. A glacial epoch resulting from the eccentricity of the earth's orbit would extend over a period of a hundred thousand years. But for the reason given above, the glaciation would be transferred from one hemisphere to another every ten thousand years. A glacial epoch extending over a hundred thousand years would therefore be broken up into several warm periods. The warm period in one hemisphere would

coincide with the cold one in the other, and there would be elevation of the land during the warm period and subsidence during the cold.

This cause would be quite sufficient to effect the alternate upheaval and depression. During the successive ages that each pole alternately was subjected to glaciation, the winter ice, unmelted by the brief summer, would accumulate till a cap many thousand feet thick formed at the pole, and would ultimately spread far down into what is now the temperate zone. If such an ice-cap were only equal in density to one thousand feet of earth, accumulated say on the north side of the globe, the centre of gravity would be shifted five hundred feet to the north; and as the ocean would accommodate itself to the centre there would be a subsidence at the north pole equal to five hundred feet. But this is not all, for at the time the ice-sheet was forming on the northern hemisphere, a sheet of equal size would be melting on the southern. This would double the effect, and produce a total submergence of one thousand feet at the north pole and a total elevation of one thousand feet at the south pole.

It is clear that all the upheavals and submergences of land which have so impressed geologists with the immensity of time required for their execution can thus be accounted for within periods, stupendous indeed if compared to historical time, or even to the duration of man on the earth, but still conceivable by human imagination. The nightmare of subsidence and emergence need no longer oppress the geologist. He has only to remark surface changes and see how far forces now at work are capable of effecting them, and if so, how long they would take. The discovery of Mr. Croll upsets the whole scale of geological time. Sir Charles Lyell was quite right in saying that the earth could not have subsided and emerged from the sea half-a-dozen times, in less than a million of years, if it sank or rose in the leisurely manner which has characterized it in recent times: consequently he could not accept as "the glacial epoch" the most recent period of great eccentricity. He was obliged to go back to the next, which happened nearly a million years ago. Sir Charles Lyell's standard of measurement is the date of the age of ice. If, therefore, the age of ice is assigned to a period two hundred thousand years ago instead of a million years ago, the standard of Sir Charles Lyell is diminished by four-fifths; and

adapting his conclusions to the altered premisses, we should have forty-eight millions of years instead of two hundred and forty millions for the age of the fossiliferous rocks.

This change of standard would agree very well with the fact that there are evidences in the eocene and miocene periods of ice-ages antecedent to the last. These might well be referred to the former periods of high eccentricity.

Enormous as are the periods which have undoubtedly passed since the creation of the world, it need not startle us to be told that every succession of events of which we have any evidence may well have occurred within a manageable number of millions of years. Could we stand as Mr. Croll says, upon the edge of a gorge a mile and a half in depth, that had been cut out of the solid rock by a tiny stream scarcely visible at the bottom of this fearful abyss, and were we informed that the little streamlet was able in one year to wear off only one-tenth of an inch of its rocky bed, what would be our conception of the prodigious length of time that it must have taken to excavate the gorge? We should certainly feel startled when on making the necessary calculations we found that the stream had performed this enormous amount of work in something less than a million years.

The absolute settlement of the question must ever be above our powers. For a few centuries only we have the comparative daylight of historical times, thence backward lies the rapidly gathering twilight of tradition; beyond that, geological periods the duration of which can be only vaguely guessed at, and beyond all these, far back in past eternity, the epoch when time began. The old belief which limited the existence of the earth to less than seven thousand years, gave way once for all, almost within living memory. All men are now agreed that the six days of creation were periods of indefinite extent. They are not solar days—for evening happened and morning happened, three times over before the sun was created. Not being days measured by the sun, we know not how many thousands of years they may have endured. The reaction was sudden and complete. Geology jumped to the conclusion that the past history of the world was without any limits that human imagination could conceive. But in quite recent years, as we have tried to show, the calm light of science has proved that the practical eternity of matter is not more tenable than the

arbitrary limitation by which thought was formerly confined.

I dare say [says Professor Tait] that many of you are acquainted with the speculations of Lyell and others, especially of Darwin, who tell us that even for a comparatively brief portion of recent geological history three hundred millions of years will not suffice! We say, so much the worse for geology as at present understood by its chief authorities, for . . . physical considerations render it impossible that more than ten or fifteen millions of years can be granted.

Sir William Thomson is not so sweeping in his assertion; but then the nature of the problem before him did not require any such opinion at his hands. His argument aimed at disproving Playfair's assertion, that neither the heavenly bodies nor the earth offered any evidence of a beginning, or any advance towards an end. If, therefore, Sir William Thomson was able to show that there was good evidence both of a beginning and an end, he was not concerned to speculate how long past time had existed, or when the end would come. His summing up is this:—

We must admit *some* limit. . . . Dynamical theory of the sun's heat renders it almost impossible that the earth's surface has been illuminated by the sun many times ten million years. And when finally we consider underground temperature we find ourselves driven to the conclusion that the existing state of things on the earth, life on the earth, and all geological history showing continuity of life, must be limited within some such period of past time as one hundred million years.

We have passed in rapid review the evidence upon which guesses, more or less plausible, as to the age of the world, have been founded. Whatever may be the opinion at which men will ultimately arrive, it cannot but be satisfactory to note from how many quarters and in how many ways natural science has in latter days cast light on the inquirer's path.

From The Cornhill Magazine.
CARITA.

BY MRS. OLIPHANT.

CHAPTER X.

THE SQUARE.

It was a rainy afternoon when Cara reached the square. It had been settled, against Miss Cherry's will, that she was to go alone. The girl, who was often

"queer," especially when anything connected with her natural home, her father's house, was in question, had requested that it should be so—and Miss Charity approved, to whose final decision everything was submitted at Sunninghill. "Don't interfere with her," Miss Charity had said; "she is like her mother. She has a vein of caprice in her. You never could argue (if you remember) with poor Annie. You had either to give in to her, or to say no once for all, and stick to it. Carry is not like her mother all through—there are gleams of the Beresford in her. But there is a vein of caprice, and I wouldn't cross her, just at this crisis of her life."

"But I don't see why it should be such a crisis. It is a change of scene, to be sure, and leaving us ought to be a trial," said Miss Cherry dubiously. The feeling within herself was, that she would have been glad had she been more sure that this was a trial. Girls were ungrateful in their light-heartedness, and sometimes loved the risks of independence. "It is not as if she were going among strangers," said Miss Cherry. "She is going to her home, and to her father."

"A father whom she has never known since she was a child—a house that has never lost the shadow of that dying!"

"Then why must not I go with her?" said Miss Cherry. The old lady shrugged her shoulders, but said no more. And Cara got her way. As she was to go alone, she was packed, with all her belongings, into the carriage; nurse going with her, who was to help in the housekeeping, and take care of the young mistress of the old familiar house. The railway, it is true, would have carried them there in half the time; but Cara liked the preparation of the long, silent drive, and it pleased the elder ladies that their darling should make her solitary journey so to her father's house. The road led through beautiful royal parks, more than one, and by glimpses of the pleasant river. It was like an old-fashioned expedition made in the days before railways, with full time for all the anticipations, all the dreams of what was to come. Though her mind was full of natural excitement and sadness, Cara could not help feeling herself like one of the heroines of Miss Austen's novels as she drove along. She had plenty of grave matters to think about, and was very much in earnest as to her life generally; yet, with the unconscious doubleness of youth, she could not help feeling only half herself, and half Elizabeth Burnet or Catherine Moreland going

off into the world. And, indeed, without sharing the difficulties of these young ladies, Cara Beresford in her own person had no small problem before her. To fill the place of her mother, an accomplished woman, she who was only a girl; to make his home pleasant to her father: to set a-going once more something like family life. And she only seventeen, and so differently situated, she said to herself, from other girls! Had she not enough to think of? The trees and the bridges, the gleams of shining river, the great stretches of wooded country, all glided past her like things in a dream. It was they that were moving, not she. Nurse talked now and then; but nurse's talking did not disturb Cara; she knew by long experience just how to put in convenient ayes and noes, so as to keep the good woman going. And thus she went on, her head full of thoughts. Her difficulties were more grave than those which generally fall to the lot of so young a girl—but, nevertheless, with the frivolity of youth, she could feel herself something like Catherine Moreland, hurrying along to Northanger Abbey, and all the wonders and mysteries there.

She had expected to find her father already arrived and awaiting her; but he did not come until she had been an hour or two in the house—which was half a relief and half an offence to her. She was received with a kind of worship by John and cook, to whom their young mistress, whom they had known only as a child, was a wonder and delight, and who mingled a greater degree of affectionate familiarity with the awe they ought to have felt for her than was quite consistent with Cara's dignity. They were anxious to pet and make much of her on her arrival—cook hurrying up-stairs, unnecessarily Cara thought, to show how prettily her room had been prepared, and John bringing her tea, with cake and the daintiest bread and butter, and a broad smile of pleasure on his face. Cara thought it incumbent upon her to send away the cake and bread and butter, taking only the tea, to prove beyond all power of misconception that she was no longer a child—but she was sorry for it after, when John, protesting and horrified, had carried it away down-stairs again. Still, though one is slightly hungry, it is best to keep up one's dignity, and "begin," as Aunt Cherry said, "as you meant to go on." Cara would not let herself be governed by old servants, that she had determined—and it was best to show them at once that this could not be.

Then she went up with some shrinking, feeling like a sea-bather making the first plunge, into the drawing-room, which no one had used for the last five years. She was obliged to confess that it was very pretty, notwithstanding that it frightened her. She half expected some one to rise from the chair before the first newly-lighted October fire to receive her as she went in. The little cabinet, the pretty brackets for the china, the scraps of old lace upon the velvet, the glimmer of old, dim, picturesque mirrors, the subdued yet brilliant color in the bits of tapestry, all moved her to admiration. At Sunninghill they had, as became a ladies' house, many pretty things, but with as little idea of art as it is possible in the present day to succeed in having. Miss Cherry knew nothing of art, and it had been invented, Miss Charity thought, since her days, which was the time when people liked to have respectable solid furniture, and did not understand æsthetics. The graceful balance and harmony of this new old house gave Cara a new sensation of admiring pleasure — and yet she did not like it. It would be hard to tell what was the cause of the painful impression which prejudiced her mind — yet there it was. Her own mother — her dead mother — that visionary figure, half nurse, half goddess, which gives a quite visionary support and consolation to some motherless children, did not exist for Cara. She remembered how she had been sent off to the Hill when they went away to enjoy themselves, and how she had been sent off to the nursery when they sat talking to each other. It had been a happy home, and she had been petted and made much of by times — but this was what she recollected most clearly. And then there rose up before her, intensified by distance, that scene in her mother's room, which she had never confided to any one. She resented this mystery that was in the past, which returned and wrapped her in a kind of mist when she came back. Why had not her parents been straightforward people, with no mysteries such, as Cara said to herself, she hated? Why was there a skeleton in the cupboard? All the things she had read in books about this had made Cara angry, and it vexed her to the heart to feel and know that there was one in her home. She had buried the secret so completely in her own bosom that it had made an aching spot all round it where it lay: like that bit of a garden which lies under a noxious shadow — like that bit of a field where a fire has been — was this place in

her heart where her secret lay. She felt it, in all its force, when she came home. At the Hill there were no secrets; they lived with their windows open and their hearts, fearing no sudden appearance, no discovery. But here it seemed that the old trouble had been waiting all these years, till the girl went back who alone knew all about it, the father's past and the mother's past; and even the atmosphere of the long-shut-up house felt pernicious. Cara did not like to look round her as it came to be dark, lest she see *some one* sitting in the corner in the shadow. It seemed to her more than once that somebody moved in the distance, going out or coming in, with a sweep of a long skirt, just disappearing as she looked up. This meant, I suppose (or at least so many people would say), that her digestion was not in such good order as it should have been — but digestion was not a thing which came within Cara's range of thought.

Her father arrived about half past six by the Continental train. Cara stood at the door of the drawing-room, with her heart beating, wondering if she ought to run down and embrace him, or if he would come to her. She heard him ask if she had come, and then he added, "I will go to my room at once, John. I suppose dinner is nearly ready. I did not expect to have been so late. Bring my things to my room."

"Shall I call Miss Cara, sir?"

"No; never mind. I shall see her at dinner," he said.

And Cara instinctively closed the drawing-room door at which she had been standing, as she heard him begin to come up the stairs. She stood there, with her heart beating, in case he should call her; but he did not. Then she too went to dress, with a chilled and stifled sensation, the first sense of repulse which she had ever experienced. When she was ready, she went back again very quickly and noiselessly, leaving the door open. By-and-by her father's step became audible coming down, and he paused when he got to the door; but then resumed and went on again, sending her word that she would find him in the dining-room. It was unreasonable, the high swelling of offence and injured pride that she felt in her heart — but there it was. Was this how he meant to use her — her, his only child — now the mistress of his house? She went down, after an interval of proud and painful reluctance, a slim, girlish creature, in her white dress, her blue eyes somewhat strained and large, more widely opened

than was consistent with perfect composure. She was not beautiful, like her mother. A certain visionary youthful severity was in her looks. She was different altogether, different in every way, from the pet and darling of the ladies at the Hill. Her father had not seen her since she had leaped into long dresses and young-womanhood, and he was startled by the change. Involuntarily, as he looked at her, her mother's description of the child Cara came back to his mind. Perhaps he was all the more quick to notice this that his eye had been caught as he paused at the drawing-room door by the last purchase he had made in bric-à-brac, the Buen Retiro cup, of which his wife had said playfully that Cara would insist that he should tell the dealer the exact value before he bought it. This strange idea brought a half-smile to his face, and yet his memories were so far from smiling. The cup had been broken to bits in the careless packing of that last journey home, when bric-à-brac had lost all interest in the gathering mists of suffering and despondency, and then afterwards, in an interval of apparent improvement, had been carefully put together and placed on a shelf, high up, where its imperfections were not visible. It was the sight of it which had kept Beresford from going into the room. He would have made the effort for Cara's sake, he thought, but that this relic, so connected with the last chapter of all, had thrust that recollection upon him. He had never entered poor Annie's drawing-room since the week she died.

"Well, Cara, my dear, I am glad to see you," he said, putting his arm round his daughter, and kissing her. "You must forgive me for not coming up-stairs. How you have grown—or rather, you have become a young lady all at once. I don't know that you are much taller."

"No; I have not grown," said Cara. "I suppose the long dress makes a difference. It is that, perhaps."

"Yes," he said. "Sit down, my dear; dinner waits. I have had a long journey, and I want something. I never eat much when I am travelling. I came by Dieppe, which is a route I detest. Ah, I forgot! You have never been across the Channel yet, Cara."

"No."

They both recollected why—and that "the next expedition" after those long honeymooning travels was to have been accompanied by "the child." Cara remembered this with a certain bitterness;

her father merely with melancholy sentiment.

"Ah!" he said, vaguely, "we must mend that—some day. And how are the aunts? I can fancy that my sister looks just as she always did. She and I are at the age when people change little. But Aunt Charity? she is getting quite an old woman now—over seventy. Have you been dull in the country, Cara? or have they petted you so much that you will feel it dull to be here?"

He looked at her with a smile which lit up his face, and touched her heart just a little; but the question touched something else than her heart—her pride and sense of importance.

"I was not dull," she said. "One is not dull when one has something to do—and is with those whom one loves."

"Ah!" he said, looking at her with a little curiosity; "that is a better way of putting it, certainly," he added, with a smile.

Then there was a pause. John, behind Mr. Beresford's chair, who had been in the house when Cara was born, and who thought he knew his master thoroughly, had much ado not to interfere, to whisper some instructions in her father's ear as to how a child like this should be dealt with, or to breathe into Cara's an entreaty that she would humor her papa. He said to his wife afterwards that to see them two sitting, pretending to eat their dinners, and never speaking, no more nor if they were wax images—or, when they did talk, talking like company—made him that he didn't know whether he was standing on his head or his heels. How many hints our servants could give us if decorum permitted their interference! John felt himself a true friend of both parties, anxious to bring them as near to each other as they ought to be; but he knew that it would have been as much as his place was worth had he ventured to say anything. So he stood regretfully, wistfully, behind backs and looked on. If he could but have caught Miss Carry's eye! but he did not, not even when, in the confusion of his feelings, he offered her mustard instead of sugar with her pudding. Her feelings were so confused also that she never noticed the mistake. Thus the dinner passed with nothing but the sparest company conversation. There were but these two in the world of their immediate family, therefore they had no safe neutral ground of brothers and sisters to talk about.

"Is your room comfortable?" Mr.

Beresford said, when they had got through a comfortless meal. "If I had been here sooner, I should have refurnished it; but you must do it yourself, Cara, and please your own taste."

"I don't think I have any taste," she said.

"Ah, well — perhaps it does not matter much; but the things which pleased you at ten will scarcely please you at seventeen. Seventeen are you? and *out*, I suppose? One might have been sure of that. Cherry would have no peace till she had you to go to parties with her."

"We very rarely go to parties," said Cara, with dignity. "Of course at seventeen one is grown up. One does not require parties to prove *that*."

He looked at her again, and this time laughed. "I am afraid you are very positive and very decided," he said. "I don't think it is necessary, my dear, to be so sure of everything. You must not think I am finding fault."

Her heart swelled — what else could she think? She did not wish, however, to appear angry, which evidently was impolitic, but shifted the subject to her father's recent travels, on which there was much to be said. "Are you going to the geographical meeting? Are they to have one expressly for you, like last year?" she said, not without a hidden meaning, of which he was conscious in spite of himself.

"You know what they said last year? Of course there was no reason for it; for I am not an explorer, and discovered nothing; but how could I help it? No; there will be no meeting this time, thank heaven."

And he saw that a faint little smile came upon Cara's lips. Instead of being delighted to see that her father had come to such honor, this little creature had thought it humbug. So it was — but it galled him to know that his daughter felt it to be so. Had she laughed out, and given him an account of the scene at the Hill; how Aunt Cherry had read the account out of the papers with such joy and pleasure; and Aunt Charity had wiped her spectacles and taken the paper herself to read the record of his valiant deeds — the little family joke would have drawn them together, even if it had been half at his expense. But no man likes to feel that his claims to honor are judged coolly by his immediate belongings, and the little remark wounded him. This, he said to himself, was not the sort of sweet girl who would make the house once more a home

to him. He let her go up-stairs without saying anything of his further intentions for the evening. And Cara felt that she had been unsuccessful in the key-note she had struck; though without blaming herself seriously, for, after all, it was he and not she who ought to have struck this key-note. She went up-stairs in a little flutter of dissatisfaction with herself and him. But, as soon as she had got up-stairs, Cara, with true feminine instinct, began to make little overtures of reconciliation. She went round the room to see what could be done to make it more homelike. She lighted the candles on the mantelpiece, and placed some books uppermost on the table, about which she could talk to him. She was not fond of work in her own person, but she had read in good story-books that needlework was one of the accessories to an ideal scene of domesticity — therefore she hunted up a piece of work and an oft-mislaidd case with thimble and scissors, and placed them ready on a little table. Then she called John, softly, as he went up-stairs, to ask him if her father took tea, or rather when he took tea, the possibility of leaving out that ceremonial altogether not having occurred to her.

"If you please, miss," said John, with a deprecating air, "master has had his cup of coffee, and he's gone out. I think he ain't gone no further than next door; and I'll make bold to say as he'll be back — soon," said John.

Cara went back to her chair, without a word — her heart beat high — her face grew crimson in spite of herself. She retreated to her seat and took up a book, and began to read at a furious pace. She did not very well know what it was about, but she had read a long chapter before John, going down-stairs and then coming up again in a middle-aged, respectable butler's leisurely way, could place the little tea-tray on the table near her. There was but one cup. It was evident that she was expected to take this refreshment alone. She gave a little good-humored nod at the man as he looked round with the comprehensive glance of his class, to see if anything wanted removal — and went on reading. The book was about unconscious cerebration, and other not highly intelligible things. Some of the phrases in it got entangled, like the straws and floating rubbish on a stream, with the touch of wild commotion in her mind, and so lived in her after this mood and a great many others had passed away. She went on reading till she had heard

John go down, and reach his own regions at the bottom of the stairs. Then she put the book down, and looked up, as if to meet the look of some one else who would understand her. Poor child! and there was no one there.

This was Cara's first night in the square.

CHAPTER XI.

MRS. MEREDITH.

IT was Mrs. Meredith who lived next door—an old friend, who was the only person Mrs. Beresford had permitted to come and see her when she returned ill, and of whom Miss Cherry had felt with confidence that Cara would find a friend in her. She had lived there almost ever since Cara was born, with her two sons, boys a little older than Cara; a pretty, gentle woman, "not clever," her friends said—"silly," according to some critics, of whom poor Annie Beresford had been one—but very popular everywhere and pleasant; a woman whom most people were glad to know. It would be hard to say exactly in what her charm lay. There were handsomer women than she to be met with by the score who were much less beloved—and as for her mind, it scarcely counted at all in the estimate of her merits. But she was kind, sympathetic, sweet-mannered—affectionate and caressing when it was becoming to be so—smiling and friendly everywhere. Great talkers liked her, for she would listen to them as if she enjoyed it; and silent people liked her, for she did not look bored by their side, but would make a little play of little phrases, till they felt themselves actually amusing. She had very sweet liquid brown eyes—not too bright or penetrating, but sympathetic always—and a soft, pretty, white hand. She was not young, nor did she look younger than she was; but her sympathies flowed so readily, and her looks were so friendly that she belonged to the younger part of the world always by natural right. Her boys were her chief thought and occupation. One of them was six, one four, years older than Cara; so that Oswald was three-and-twenty and Edward on the eve of his majority when the girl arrived at her father's house. Mrs. Meredith's perpetual occupation with these boys, her happiness in their holiday times, her melancholy when they went to school, had kept her friends interested for a number of years. Men who breathed sighs of relief when the terrible period of the holidays came to an end, and their own

schoolboys were got rid of, put on soft looks of pity when they heard that Oswald and Edward were gone too; and mothers who were themselves too thankful that no drownings or shootings, not even a broken collar-bone or a sprained ankle, had marked the blissful vacations in their own house, half cried with Mrs. Meredith over the silence of hers "when the boys were away." They came and carried her off to family dinners, and made little parties to keep her from feeling it; as if there had been no boys in the world but those two. "For you know her circumstances are so peculiar," her friends said. The peculiarity of her circumstances consisted in this, that though she had lived alone for these fifteen years in the square, she was not a widow—neither was she a separated or in any way blamable wife. All that could be said was that the circumstances were very peculiar. She who was so sweet, whom everybody liked, did not somehow "get on" with her husband. "Abody likes me but my man," said a Scotch fisherwoman in a similar position. Mrs. Meredith did not commit herself even to so terse a description. She said nothing at all about it. Mr. Meredith was in India—though whether he had always been there, or had judiciously retired to that wide place, in consequence of his inability to get on with the most universally liked of women, it was not generally known. But there he was. He had been known to come home twice within the fifteen years, and had paid a visit at the square among other visits he had paid—and his wife's friends had found no particular objections to him. But he had gone back again, and she had remained, placidly living her independent life. She was well off. Her boys were at Harrow first, and then at the University, where Edward still was disporting himself; though he had just got through his examination for the Indian Civil Service, and had more practical work in prospect. Oswald, who had ended his career at Oxford, was living at home; but even the grown-up son in the house had not removed any of her popularity. She had a perpetual *levée* every afternoon. Not a morning passed that two or three ladies did not rush in, in the sacred hours before luncheon, when nobody is out, to tell her or ask her about something; and the husbands would drop in on their way from business, from their offices or clubs, just for ten minutes before they went home. This was how her life was spent—and though sometimes she would speak of that life despondently, as one passed under a

perpetual shadow, yet, in fact, it was a very pleasant, entertaining, genial life. To be sure, had she been passionately attached to the absent Mr. Meredith, she might have found drawbacks in it; but, according to appearances, this was scarcely the case, and perhaps never had been.

This lady was the first visitor Cara had in the square. She came in next morning, about twelve o'clock, when the girl was languidly wondering what was to become of her. Cara had not spent a cheerful morning. Her father had come to breakfast, and had talked to her a little about ordinary matters, and things that were in the newspaper. He was as much puzzled as a man could be what to do with this seventeen-year old girl whom he had sent for, as a matter of course, when he himself came home to settle, but whom now he found likely to be an interruption to all his habits. He did not know Cara, and was somehow uneasy in her presence, feeling in her a suspicion and distrust of himself which he could by no means account for. And Cara did not know him, except that she did distrust and suspect him, yet expected something from him, she could not tell what; something better than the talk about collisions and shipwrecks in the papers. She tried to respond, and the breakfast was not a sullen or silent meal. But what a contrast it was from the bright table at the Hill, with the windows open to the lawn, and all the spontaneous happy talk, which was not made up for any one, but flowed naturally, like the air they breathed! Mr. Beresford was much more accomplished than Aunt Cherry; a clever man, instead of the mild old maiden whom everybody smiled at, but — All this went through Cara's mind as she poured out his coffee, and listened to his account of the new steamboat. There was a perfect ferment of thought going on in her brain while she sat opposite to him, saying yes and no, and now and then asking a question, by way of showing a little interest. She was asking herself how things would have been if her mother had lived; how they would have talked then: whether they would have admitted her to any share in the talk, or kept her outside, as they had done when she was a child? All these questions were jostling each other in her mind, and misty scenes rising before her, one confusing and mixing up with the other — the same breakfast-table, as she remembered it of old, when the father and mother in their talk would sometimes not hear her questions, and sometimes say, "Don't tease, child," and sometimes bid her run

away to the nursery; and as it might have been with her mother still sitting by, and herself a silent third person. Mr. Beresford had not a notion what the thoughts were which were going on under Cara's pretty hair, so smoothly wound about her head, and shining in the autumn sunshine, and under the pretty dark-blue morning dress which "threw up," as Cherry meant it to do, the girl's whiteness and brightness. She could make *him* out to some degree, only putting more meaning in him than he was himself at all aware of; but he could not make out her. Did thought dwell at all in such well-shaped little heads, under hair so carefully coiled and twisted? He did not know, and could no more divine her than if she had been the sphinx in person; but Cara, if she went wrong, did so by putting too much meaning into him.

When breakfast was over, he rose up, still holding his paper in his hand. "I am afraid you will feel the want of your usual occupations," he said. "Lessons are over for you, I suppose? It is very early to give up education. Are you reading anything? You must let me know what you have been doing, and if I can help you."

How helpless he looked standing there, inspecting her; but he did not look so helpless as he felt. How was he, a man who had never done any of life's ordinary duties, to take the supervision of a girl into his hands? If she had been a boy, he might have set her down by his side (the confusion of pronouns is inevitable) to work at Greek — a Greek play, for instance, which is always useful; but he supposed music and needlework would be what she was thinking of. No; if she had been a boy, he would have done better than take her to his study and set her down to a Greek play; he could have sent her to the University, like Edward Meredith, like every properly educated young man. But a girl of seventeen, he had always understood, was of an age to take the control of her father's house — was "out" — a being to be taken into society, to sit at the head of his table (though rather young); and the idea that she might require occupation or instruction between the moments of discharging these necessary duties had not occurred to him. It did now, however, quite suddenly. What was she going to do? When he went into his library, she would go to the drawing-room. Would she take her needle-work? would she go to the long-disused piano? What would the young strange female creature do?

"Thank you, papa," said Cara, which was of all others the most bewildering

reply she could have given him. He gazed at her again, and then went away in his utter helplessness.

"You will find me in the library, if you want me," he said aloud. But in himself he said, with more confidence, "Mrs. Meredith will know;" or rather, perhaps, if the truth must be said, he thought, "*She* will know. She will see at once what ought to be done. She will tell me all about it to-night!" And with this consolation he went into his library and betook himself to his important morning's work. He had to verify a quotation, which he thought had been wrongly used in his friend Mr. Fortis' book about Africa. He had to write to one or two fellows of his pet society, about a series of lectures on an interesting point of comparative science, which he thought the great authority on the subject might be persuaded to give. He had to write to Mr. Sienna Brown about a Titian which had been repainted and very much injured, and about which he had been asked to give his opinion by the noble proprietor, whom he had met on his return home. It will be perceived that it would have been a serious disadvantage to public interests had Mr. Beresford been required to withdraw his thoughts from such important matters, and occupy them with the education of an unremarkable girl.

And Cara went up-stairs. She had already seen cook, who had kindly told her what she thought would be "very nice" for dinner, and had agreed humbly; but had not, perhaps, been quite so humble when cook entreated "Miss Cara, dear," with the confidence of an old servant, not to be frightened, and assured her that she'd soon get to know her papa's ways.

When she got to the drawing-room, she went first to the windows and looked out, and thought that a few more plants in the balcony would be an advantage, and recollected how she used to play in the square, and gave a sidelong glance at the railings of next door, wondering whether "the boys" were at home, and if they had changed. Then she came in, and went to the fire, and looked at herself and the big silent room behind her in the great mirror on the mantelpiece. Cara was not vain—it was not to see how she looked that she gazed wistfully into that reflection of the room in which she was standing, so rich and full with all its pictures, its china, its tapestries and decorations confronting her like a picture, with one lonely little girl in it, in a dark-blue dress and white collar, and big, sad, strained blue eyes.

What a forlorn little thing that girl seemed! nobody to interchange looks with even, except herself in the glass; and the room so crowded with still life, so destitute of everything else: so rich, so warm, so beautiful, so poor, so destitute, so lonely! What was she to do with herself for the long, solitary day? She could not go out, unless she went with nurse, as she used to do when she was a child. She was an open-air girl, loving freedom, and had been used to roam about as she pleased in the sweet woods about the Hill. You may imagine how lost the poor child felt herself in those stony regions round the square.

And it was just then that Mrs. Meredith arrived. She came in, rustling in her pretty rich silk gown, which was dark blue too, like Cara's. She came and took the girl into her kind arms and kissed her. "If I had known when you were coming yesterday, I should have been here to receive you," she said; "my poor, dear child, coming back all by yourself! Why did not Aunt Cherry come with you, to get you a little used to it before you were left alone?"

"We thought it was best," said Cara, feeling all at once that she had brought the greatest part of her troubles on herself. "We thought papa would like it best."

"Now, my dear," said Mrs. Meredith, giving her a kiss, and then shaking a pretty finger at her, "you must not begin by making a bugbear of papa. What he wishes is that you should be happy. Don't look sad, my darling. Ah, yes, I know it is a trial coming back here. It is a trial to me even," said Mrs. Meredith, looking round and drying her soft eyes, "to come into your poor mamma's room, and see everything as she left it; and think what a trial it must be for *him*, Cara?"

"He has never been here," said the girl, half melted, half resisting.

"Poor soul!" said Mrs. Meredith. "Poor man! Oh, Cara! if it be hard for you, think what it is for him! You are only a child, and you have all your life before you, you dear, young, happy thing."

"I am not so very happy."

"For the moment, my darling; but wait a little, wait," said the kind woman, her eyes lighting up—"till the boys come home. There you see what a foolish woman I am, Cara. I think everything mends when the boys come home. I ought to say when Edward comes home, to be sure, for I have Oswald with me

now. But Edward always was your friend; don't you remember? Oswald was older; and it makes a great difference somehow when they are men. A man and a boy are two different things; and it is the boy that I like the best. But I have been so calculating upon you, my dear. You must run in half-a-dozen times a day. You must send for me whenever you want me. You must walk with me when I go out. I have no daughter, Cara, and you have no mother. Come, darling, shall it be a bargain?"

The tears were in this sweet woman's eyes, whom everybody loved. Perhaps she did not mean every word she said—who does? but there was a general truth of feeling in it all, that kept her right. Cara ran straight into her arms, and cried upon her shoulder. Perhaps, because she was frightened and distrustful in other particulars of her life, she was utterly believing here. Here was the ideal for which she had looked—a friend, who yet should be something more than a friend; more tender than Cara could remember her mother to have been, yet something like what an ideal mother, a mother of the imagination, would be. Sweet looks, still beautiful, the girl thought in the enthusiasm of her age, yet something subdued and mild with experience—an authority, a knowledge, a power which no contemporary could have. Cara abandoned herself in utter and total forgetfulness of all prejudices, resistances, and doubts, to this new influence. Her mother's friend, the boys' mother, who had been her own playmates, and about whom now she was so curious, without knowing it—her nearest neighbor, her natural succor, a daughterless woman, while she was a motherless girl. Happiness seemed to come back to her with a leap. "I shall not mind anything if I may always come to you, and ask you about anything," she said.

"And of course you must do that. Did not Cherry tell you so? I thought Cherry would have been faithful to me. Ah! she did? then I am happy, dear; for if I have one weakness more than another it is that my friends should not give me up. But Cherry should have come with you," said Mrs. Meredith, shaking her head.

"It was all for papa——"

"But that is what I find fault with—papa's only daughter, only child, thinking for a moment that her happiness was not what he wanted most."

Cara drooped her guilty head. She was guilty; yes, she did not deny it, but proba-

bly this goddess-woman, this ideal aid and succor, did not know how little in the happier days had been thought of Cara. She had always thought of "the boys" first of all; but then Mr. Meredith—Cara had an odd sort of recollection somehow that Mr. Meredith was not first, and that perhaps this might account for the other differences. So she did not say anything, but sat down on a stool at her new-old friend's feet, and felt that the strange, rich, beautiful room had become home.

"Now I never could do anything like this," said Mrs. Meredith, looking round. "I am fond of china too; but I never know what is good and what is bad; and sometimes I will see your papa take down a bit which I think beautiful, and look at it with such a face. How is one to know," she said, laughing merrily, "if one is not clever? I got the book with all the marks in it, but, my dear child, I never recollect one of them; and then such quantities of pretty china is never marked at all. Ah, I can understand why he doesn't come here. I think I would make little changes, Cara. Take down that, for instance"—and she pointed at random to the range of velvet-covered shelves, on the apex of which stood the Buen Retiro cup—"and put a picture in its place. Confuse him by a few changes. Now stop: is he in? I think we might do it at once, and then we could have him up."

Cara shrank perceptibly. She drew herself a little away from the stranger's side. "You are frightened for him," cried Mrs. Meredith, with a soft laugh. "Now, Cara, Cara, this is exactly what I tell you must not be. You don't know how good and gentle he is. I can talk to him of anything—even my servants, if I am in trouble with them; and every woman in London, who is not an angel, is in trouble with her servants from time to time. Last time my cook left me—— Why, there is nothing," said Mrs. Meredith, reflectively, "of which I could not talk to your papa. He is kindness itself."

This was meant to be very reassuring, but somehow it did not please Cara. A half resentment (not so distinct as that) came into her mind that her father, who surely belonged to her, rather than to any other person on the face of the earth, should be thus explained to her and recommended. The feeling was natural, but painful, and somewhat absurd, for there could be no doubt that she did not know him, and apparently Mrs. Meredith did; and what she said was wise; only some-

how it jarred upon Cara, who was sensitive all over, and felt every touch, now here, now there.

"Well, my dear, never mind, if you don't like it, for to-day; but the longer it is put off the more difficult it will be. Whatever is to be done ought to be done at once I always think. He should not have taken a panic about this room; why should he? Poor dear Annie! everything she loved ought to be dear to him; that would be my feeling. And Cara, dear, you might do a great deal; you might remove this superstition forever, for I do think it is superstition. However, if you wish me to say no more about it, I will hold my tongue. And now what shall we do to-day? Shall we go out after luncheon? As soon as you have given your papa his lunch, you shall put on your things, and I will call for you. My people never begin to come before four; and you shall come in with me and see them. That will amuse you, for there are all sorts of people. And your papa and you are going to dine with us; I told him last night you must come. You will see Oswald and renew your acquaintance with him, and we can talk. Oswald is very good-looking, Cara. Do you remember him? Fine dark hair and dark eyes; but I wish he had always remained a boy; though of course that is not possible," she said, shaking her head with a sigh. "Now I must run away, and get through my morning's work. No, don't disturb your papa; evening is his time. I shall see him in the evening. But be sure you are ready to go out at half past two."

How little time there seemed to be for moping or thinking after this visit! Cara made a rapid survey of the drawing-room when she returned to it, to see what changes could be made, as her friend suggested. She would not have had the courage to do any such thing, had it not been suggested to her. It was her father's room, not hers; and what right had she to meddle? But somewhat a different light seemed to have entered with her visitor. Cara saw, too, when she examined, that changes could be made which would make everything different, yet leave everything fundamentally the same. Her heart fluttered a little at the thought of such daring. She might have taken such a thing upon her at the Hill, without thinking whether or not she had a right to do it; but then she never could have had time to move anything without Miss Charity or Miss Cherry coming in, in the constant cheery intercourse of the house. But for these

changes she would have abundant time; no one would come to inspect while her rearrangements were going on. However there was no time to think of them now; the day was busy and full. She came down-stairs for luncheon with her bonnet on, that she might not be too late. "I am going out with Mrs. Meredith," she said to her father, in explanation of her out-of-door costume.

"Ah, that is right," he said. "And we are to dine there this evening." Even he looked brighter and more genial when he said this. And the languid day had grown warm and bright, full of occupations and interest, even of luxury; for to keep Mrs. Meredith *waiting*—to be too late—that would never do!

CHAPTER XII.

THE HOUSE NEXT DOOR.

MRS. MEREDITH'S drawing-room was not like the twin room next door. It was more ornate, though not nearly so beautiful. The three windows were draped in long misty white curtains, which veiled the light even at its brightest and made a curious artificial semblance of mystery and retirement on this autumn afternoon, when the red sunshine glowed outside. Long looking-glasses here and there reflected these veiled lights. There was a good deal of gilding, and florid furniture, which insisted on being looked at. Cara sat down on an ottoman close to the further window after their walk, while Mrs. Meredith went to take off her bonnet. She wanted to see the people arrive, and was a little curious about them. There were, for a country house, a good many visitors at the Hill, but they came irregularly and sometimes it would happen that for days together not a soul would appear. But Mrs. Meredith had no more doubt of the arrival of her friends than if they had all been invited guests. Cara was still seated alone, looking out, her pretty profile relieved against the white curtain like a delicate little cameo, when the first visitor arrived, who was a lady, and showed some annoyance to find the room already occupied. "I thought I must be the first," she said, giving the familiar salutation of a kiss to Mrs. Meredith as she entered. "Never mind, it is only Cara Beresford," said that lady, and led her friend by the hand to where two chairs were placed at the corner of the fire. Here they sat and talked in low tones with great animation, the "he says" and "she says" being almost all that reached Cara's ear, who,

though a little excited by the expectation of "company," did not understand this odd version of it. By-and-by, however, the lady came across to her and began to talk, and Cara saw that some one else had arrived. The room filled gradually after this, two or three people coming and going, each of them in their turn receiving a few minutes' particular audience. Nothing could be more evident than that it was to see the lady of the house that these people came; for though the visitors generally knew each other, there was not much general conversation. Every new-comer directed his or her glance to Mrs. Meredith's corner, and if the previous audience was not concluded relapsed into a corner, and talked a little to the next person, whoever that might be. In this way Cara received various points of enlightenment as to this new society. Most of them had just returned to town. They talked of Switzerland, they talked of Scotland; of meeting So-and-so here and there; of this one who was going to be married; and that one who was supposed to be dying; but all this talk was subsidiary to the grand object of the visit, which was the personal interview. Cara, though she was too young to relish her own spectator position, could not help being interested by the way in which her friend received her guests. She had a different aspect for each. The present one, as Cara saw looking up, after an interval, was a man, with whom Mrs. Meredith was standing in front of the furthest window. She was looking up in his face, with her eyes full of interest, not saying much; listening with her whole mind and power, every fold in her dress, every line of her hair and features, falling in with the sentiment of attention. Instead of talking, she assented with little nods of her head and soft acquiescent or remonstrative movements of her delicate hands, which were lightly clasped together. This was not at all her attitude with the ladies, whom she placed beside her, in one of the low chairs, with little caressing touches and smiles and low-voiced talk. How curious it was to watch them one by one! Cara felt a strong desire, too, to have something to tell; to go and make her confession or say her say upon some matter interesting enough to call forth that sympathetic, absorbed look—the soft touch upon her shoulder, or half embrace.

It was tolerably late when the visitors went away—half past six, within an hour of dinner. The ladies were the last to go, as they had been the first to come, and

Cara, relieved by the departure of the almost last stranger, drew timidly near the fire, when Mrs. Meredith called her. It was only as she approached—and the girl felt cold, sitting so far off and being so secondary, which is a thing that makes everybody chilly—that she perceived somebody remaining, a gentleman seated in an easy-chair—an old gentleman (according to Cara; he was not of that opinion himself), who had kept his place calmly for a long time without budging, whosever went or came.

"Well, you have got through the heavy work," said this patient visitor, "and I hope you have sent them off happier. It has not been your fault, I am sure, if they are not happier; they have each had their audience and their appropriate word."

"You always laugh at me, Mr. Somerville: why should not I say what I think they will like best to the people who come to see me?"

"Ah, when you put it like that," he said, "certainly, why shouldn't you? But I think some of those good people thought that you gave them beautiful advice and consolation, didn't you? I thought it seemed like that as I looked on."

"You are always so severe. Come, my darling, you are out of sight there, come and smooth down this mentor of mine by the sight of your young face. This is my neighbor's child, Miss Beresford, from next door."

"Ah, *the* neighbor!" said Mr. Somerville, with a slight emphasis, and then he got up somewhat stiffly and made Cara his bow. "Does not he come for his daily bread like the rest?" he said in an undertone.

"Mr. Beresford is going to dine with me to-night, with Cara, who has just come home," said Mrs. Meredith, with a slight shade of embarrassment on her face.

"Ah, from school?" said this disagreeable old man.

It had grown dark, and the lady herself had lighted the candles on the mantelpiece. He was sitting immediately under a little group of lights in a florid branched candlestick, which threw a glow upon his baldness. Cara, unfavorably disposed, thought there was a sneer instead of a smile upon his face, which was partially in shade.

"I have never been to school," said the girl, unreasonably angry at the imputation; and just then some one else came in—another gentleman, with whom Mrs. Meredith, who had advanced to meet him, lingered near the door. Mr. Somerville

watched over Cara's head, and certainly his smile had more amusement than benevolence in it.

"Ah!" he said again, "then you miss the delight of feeling free: no girl who has not been at school can understand the pleasure of not being at school any longer. Where have you been, then, while your father has been away?"

"With my aunts, at Sunninghill," said Cara, unnecessarily communicative, as is the habit of youth.

"Ah, yes, with your aunts. I used to know some of your family. Look at her now," said the critic, more to himself than to Cara — "this is a new phase. This one she is smoothing down."

Cara could not help a furtive glance. The new-comer had said something, she could not hear what, and stood half-defiant at the door. Mrs. Meredith's smile spoke volumes. She held out her hand with a deprecating, conciliatory look. They could not hear what she said, but the low tone, the soft aspect, the extended hand, were full of meaning. The old gentleman burst into a broken, hoarse laugh. It was because the new-comer, melting all at once, took the lady's hand and bowed low over it, as if performing an act of homage. Mr. Somerville laughed, but the stranger did not hear.

"This is a great deal too instructive for you," he said. "Come and tell me about your aunts. You think me quite an old man, eh? and I think you quite a little girl."

"I am not so young! I am seventeen."

"Well! And I am seven-and-fifty — not old at all — a spruce and spry bachelor, quite ready to make love to any one; but such are the erroneous ideas we entertain of each other. Have you known Mrs. Meredith a long time? or is this your first acquaintance?"

"Oh, a very long time — almost since ever I was born."

"And I have known her nearly twenty years longer than that. Are you very fond of her? Yes, most people are. So is your father, I suppose, like the rest. But now you are the mistress of the house, eh? you should not let your natural-born subjects stray out of your kingdom o' nights."

"I have not any kingdom," said Cara, mournfully. "The house is so sad. I should like to change it if papa would consent."

"That would be very good," said the volunteer counsellor, with alacrity. "You

could not do anything better, and I dare say he will do it if you say so. A man has a great deal of tenderness for his wife's only child when he has lost her. You have your own love and the other too."

"Have I?" said the girl, wistfully. Then she remembered that to talk of her private affairs and household circumstances with a stranger was a wonderful dereliction of duty. She made herself quite stiff accordingly in obedience to propriety, and changed her tone.

"Is not Oswald at home?" she said. "I thought I should be sure to see him."

"Oswald is at home, but he keeps away at this hour. He overdoes it, I think; but sons like to have their mothers to themselves; I don't think they like her to have such troops of friends. And Oswald, you know, is a man, and would like to be master."

"He has no right to be master!" said Cara, the color rising on her cheeks.

"Why should not she have her friends?"

"That is exactly what I tell him; but most likely he will understand you better. He is not my ideal of a young man; so you have no call to be angry with me on account of Oswald."

"I — angry with — you; when I don't know you — when I never saw you before! I beg your pardon," cried Cara, fearing that perhaps this might sound rude; but if it was rude it was true.

"Must you go?" said Mrs. Meredith to her visitor. "Well, I will not delay you, for it is late; but that is all over, is it not? I cannot afford to be misunderstood by any one I care for. Won't you say 'How d'ye do?' to Mr. Somerville, my old friend, whom you see always, and Miss Beresford, my young friend, whom you have never seen before?"

"I have not time, indeed," said the stranger, with a vague bow towards the fireplace; "but I go away happy — it is all over, indeed. I shall know better than ever to listen to detractors and mischief-makers again."

"That is right," she said, giving him her hand once more. When he was gone she turned back with a little air of fatigue. "Somebody had persuaded that foolish boy that I thought him a bore. He is not a bore — except now and then; but he is too young," said Mrs. Meredith, shaking her head. "You young people are so exigent, Cara. You want always to be first, and in friendship that, you know, is impossible. All are equal on that ground."

"I am glad you have a lesson now and then," said Mr. Somerville. "You know my opinion on that subject."

"Are you going to dine with us, dear Mr. Somerville?" said Mrs. Meredith sweetly, looking at her watch. "Do. You know Mr. Beresford is coming, who is very fine company indeed. No? I am so sorry. It would be so much more amusing for him, not to speak of Cara and me."

"I am very sorry I can't amuse you to-night," he said, getting to his feet more briskly than Cara expected. Mrs. Meredith laughed; and there was a certain sound of hostility in the laugh, as though she was glad of the little prick she had bestowed.

"Cara, you must run and dress," she said; "not any toilet to speak of, dear. There will only be your father and Oswald; but you must be quick, for we have been kept very late this evening. I wonder you can resist that young face," she said, as Cara went away. "You are fond of youth, I know."

"I am not fond of affording amusement," he said. He limped slightly as he walked, which was the reason he had allowed Cara to go before him. "Yes, I like youth. Generally it makes few phrases, and it knows what it means."

"Which is just what I dislike."

"Yes, elderly sirens naturally do. But next time Beresford comes to dine, and you ask me, if you will give me a little longer notice I will come, for I want to meet him."

"Let it be on Saturday, then," she said; "that is, if he has no engagement. I will let you know."

"As if she did not know what engagements he had!" Mr. Somerville said to himself: "as if he ever dreamt of going anywhere that would interfere with his visits here!" He struck his stick sharply against the stairs as he went down. He had no sense of hostility to Mrs. Meredith, but rather that kind of uneasy liking akin to repugnance, which made him wish to annoy her. He felt sure she was made angry by the sound of his stick on the stairs. Her household went upon velvet, and made no noise, for though she was not fanciful she had nerves, and was made to start and jump by any sudden noise.

Cara heard him go with his stick along the square, as nurse, who was her maid, closed the windows of her room. The sound got less distinct after this, but still she could hear it gradually disappearing. What a disagreeable old man he was,

though he said he did not think himself old; at seven-and-fifty! Cara thought seven-and-twenty oldish, and seven-and-thirty the age of a grandfather, and yet he did not think himself old! So strange are the delusions which impartial people have to encounter in this world. Nurse interrupted her thoughts by a question about her dress. One of her very prettiest evening dresses lay opened out upon her bed.

"That is too fine," said Cara; "we are to be quite alone."

"You haven't seen Mr. Oswald, have you, Miss Cara dear? He has grown up that handsome you would not know him. He was always a fine boy; but now—I don't know as I've ever seen a nicer-looking young man."

"I will have my plain white frock, please, nurse—the one I wore last night," said Cara, absolutely unaware of any connection that could exist between Oswald Meredith's good looks and her second-best evening dress—a dress that might do for a small dance, as Aunt Cherry had impressed upon her. It never occurred to the girl that her own simple beauty could be heightened by this frock or that. Vanity comes on early or late, according to the character; but, except under very favorable (or unfavorable) circumstances, seldom develops in early youth. Cara had not even begun to think whether she herself was pretty or not, and she would have scorned with hot shame and contempt the idea of dressing for effect. People only think of dress when they have lost the unconsciousness of youth. She did not understand enough of the A B C of that sentiment to put any meaning to what nurse said, and insisted upon her plain muslin gown, laughing at the earnestness of the attendant. "It is too fine," she said. "Indeed I am not obstinate: it would be a great deal too fine." Her father was waiting for her in the hall when the simple toilette was completed, and Mrs. Meredith had not yet made her appearance when the two went into the drawing-room next door. Mr. Beresford sat down with his eyes turned towards the door. "She is almost always late," he said, with a smile. He was a different man here—indulgent, gentle, fatherly. Mrs. Meredith came in immediately after, with pretty lace about her shoulders and on her head. "Oswald is late, as usual," she said, putting her hand into Mr. Beresford's. He looked at her, smiling, with a satisfied, friendly look, as if his eyes loved to dwell upon her.

He smiled at Oswald's lateness; did not look cross, as men do when they are waiting for their dinner. "Cara is punctual, you see," he said, with a smile.

"Cara is a dear child," said Mrs. Meredith. "She has been with me all day. How odd that you should be made complete by a daughter and I by a son, such old friends as we are. Ah! here is Oswald. Would you have known him, Cara? Oswald, this is —"

"There is no need to tell me who it is," said Oswald. Cara saw, when she looked at him, that what the others had said was true. It did not move her particularly, but still she could see that he was very handsome, as everybody had told her. He took her hand, which she held out timidly, and, without any ceremony, drew it within his arm. "We must go to dinner at once," he said, "or Sims will put poison in the soup. She longs to poison me, I know, in my soup, because I am always late; but I hope she will let me off for your sake, Cara. And so really you are little Cara? I did not believe it, but I see it is true now."

"Why did not you believe it? I think I should have known you," said Cara, "if I had met you anywhere. It is quite true; but you are just like Oswald all the same."

"What is quite true?" Oswald was a great deal more vain than Cara was, being older and having had more time to see the effect of his good looks. He laughed and did not push his question any further. It was a pleasant beginning. He had his mother's sympathetic grace of manner, and, Cara felt at once, understood her, and all her difficulties at a glance, as Mrs. Meredith had done. How far this was true may be an open question, but she was convinced of it, which for the moment was enough.

"We did not come down-stairs so ceremoniously last time we met," he said. "When you came for the nursery tea, with nurse behind you. I think Edward held the chief place in your affections then. He was nearer your age; but thank heaven that fellow is out of the way, and I have a little time to make the running before he comes back!"

Cara did not know what it meant to "make the running," and was puzzled. She was not acquainted with any slang except that which has crept into books, but an expression of pleasure in Edward's absence appalled her. "I remember him best," she said, "because he was more near my age; but you were both big boys — too big to care for a little thing like me.

I remember seeing you come in with a latch-key one afternoon and open the door — ah!" said Cara, with a little cry. It had been on the afternoon of her mother's death when she had been placed at the window to look for her father's coming, and had seen the two big boys in the afternoon light, and watched them with an interest which quite distracted her attention for the moment, fitting the key into the door.

"What is it?" he said, looking at her very kindly. "You have not been here for a long time — yes, it must bring back so many things. Look, Cara! Sims is gracious; she will not poison me this time. She has not even frowned at me, and it is all because of you."

"I like Sims," said Cara, her heart rising, she could not tell why. "I like everybody I used to know."

"So do I — because you do; otherwise I am not so fond of my fellow-creatures; some of them plague one's life out. What are you going to do when you get used to the excitement of seeing us all again? You will find yourself very badly off for something to do."

"Do you?" said Cara, innocently.

"My mother does for me. She thinks me very idle. So I am, I suppose. What is the good of muddling what little brains one has in work? One in a family who does that is enough. Edward is that excellent person. He goes in for Greek so that my head aches; though why he should, being intended for the Civil Service, I don't know."

"Won't it do him any good?" said Cara, with regret. She was practical, and did not like to hear of this waste of labor.

"Is Edward — changed — like you?" she added softly, after a pause. He looked at her with laughing bright eyes, all softened and liquid with pleasure. He knew what she meant, and that his handsome face was having its natural effect upon Cara; though, being much older than Cara, he could not have believed how little effect his good looks really had.

"I think he is very like what he always was," he said; "he is such a good fellow, Cara. If any one asks you which is the best of the Merediths, say Edward. You may be sure you are right. Listen what the elders are saying; they are talking about you and me."

"Why about you and me?" Cara was always slightly alarmed to hear that she was being talked of. It roused the latent suspicion in her which had been startled into being at her mother's death. She

stopped talking, and looked at the other two. His mother was opposite to Oswald, and her father was opposite to her. What an odd arrangement it seemed when you came to think of it! If papa had got one of the boys, and she, Cara, had fallen to the lot of Mrs. Meredith—would that have been better? She looked at Oswald's mother and wondered; then bethought herself of the Hill and blushed. No, such an idea was nothing but treachery to the Hill, where it was Cara, and no other, who was the chosen child.

"She has grown into a little lily," said Mrs. Meredith. "She is shy, but open and winning, and I like girls to be shy like that. I do not wonder that you are proud of her."

"Am I proud of her? I am not sure. She is nice-looking, I think."

"Nice-looking! She has grown into a little lily. It is wonderful how she blends two likenesses: I see you both. Ah! have I said too much? A happy child so often does that; you will forgive me if I say anything that hurts——"

"You could not say anything that hurts," he said in a low voice, "it would not hurt coming from you."

"Well, perhaps it ought not," she said, with a smile, "because it is said in true friendship. I noticed that at once in Cara—sometimes one and sometimes the other—like both. That is not the case with my boys. I shall not have Edward till Christmas. You know it has always been my happy time when the boys were here."

"Is Oswald doing anything?" A close observer would have seen that Mr. Beresford was not fond of Oswald. He was not nearly so well-disposed to him as Mrs. Meredith was to Cara. Perhaps it was purely on moral grounds and justifiable; perhaps the young man and his senior came in each other's way more than the girl and the matron did. This abrupt question rather put a stop to poor Mrs. Meredith. She blushed a little and faltered as she replied.

From Macmillan's Magazine.

CHARLOTTE BRONTE. A MONOGRAPH.

I.

It is just twenty years since one of the most fascinating and artistic biographies in the English language was given to the world. Mrs. Gaskell's "Life of Charlotte Brontë" no sooner appeared than it took firm possession of the public mind; and

it has ever since retained its hold upon all who take an interest in the career of one who has been called, in language which is far less extravagant in reality than in appearance, "the foremost woman of her age." Written with admirable skill, in a style at once powerful and picturesque, and with a sympathy such as only one artist could feel for another, it richly merited the popularity which it gained and has kept. Mrs. Gaskell, however, labored under one serious disadvantage, which no longer exists in anything like the same degree in which it did twenty years ago. Writing but a few months after Charlotte Brontë had been laid in her grave, and whilst the father to whom she was indebted for so much that was characteristic in her life and genius was still living, Mrs. Gaskell had necessarily to deal with many circumstances which affected living persons too closely to be handled in detail. Even as it was she involved herself in serious embarrassment by some of her allusions to incidents connected more or less nearly with the life of Charlotte Brontë; corrections and retractions were forced upon her, the later editions of the book differed considerably from the first, and at last she was compelled to announce that any further correspondence concerning it must be conducted through her solicitors. Thus she was crippled in her attempt to paint a full-length picture of a remarkable life, and her story was what Mr. Thackeray called it, "necessarily incomplete, though most touching and admirable."

Mrs. Gaskell also seems to have set out with the determination that her work should be pitched in a particular key. She had formed her own conception of Charlotte Brontë's character, and with the passion of the true artist and the ability of the practised writer she made everything bend to that conception. The result was that whilst she produced a singularly striking and effective portrait of her heroine, it was not one which was absolutely satisfactory to those who were the oldest and closest friends of Charlotte Brontë. If the truth must be told, the life of the author of "Jane Eyre" was by no means so joyless as the world now believes it to have been. That during the later years in which this wonderful woman produced the works by which she has made her name famous, her career was clouded by sorrow and oppressed by anguish both mental and physical, is perfectly true. That she was made what she was in the furnace of affliction cannot be

doubted; but it is not true that she was throughout her whole life the victim of that extreme depression of spirits which afflicted her at rare intervals, and which Mrs. Gaskell has presented to us with so much vividness and emphasis. On the contrary, her letters show that at any rate up to the time of her leaving for Brussels, she was a happy and high-spirited girl, and that even to the very last she had the faculty of overcoming her sorrows by means of that steadfast courage which was her most precious possession, and to which she was so much indebted for her successive victories over trials and disappointments of no ordinary character. Those who imagine that Charlotte Brontë's spirit was in any degree a morbid or melancholic one do her a singular injustice. Intensely reserved in her converse with all save the members of her own household, and the solitary friend to whom she clung with such passionate affection throughout her life, she revealed to these

The other side, the novel
Silent lights and darks undreamed of,

which were and have remained hidden from the world, but which must be seen by those who would know what Charlotte Brontë really was as a woman. Alas! those who knew her and her sisters well during their brief lives are few in number now. The Brontës who plucked the flower of fame out of the thorny waste in which their lots were cast survive in their books and in Mrs. Gaskell's biography. But the Brontës, the women who lived and suffered thirty years ago, and whose characters were instinct with so rare and lofty a nobility, so keen a sensitiveness, so pure a humility, are known no longer.

Yet one mode of making acquaintance with them is still open to some among us. From her school-days down to the hour in which she was stretched prostrate in her last sickness, Charlotte Brontë kept up the closest and most confidential intercourse with her one life-long friend. To that friend she addressed letters which may be counted by hundreds, scarcely one of which fails to contain some characteristic touch worthy of the author of "Villette." No one can read this remarkable correspondence without learning the secret of the writer's character; none, as I believe, can read it without feeling that the woman who "stole like a shadow" into the field of English literature in 1847, and in less than eight years after stole as noiselessly away, was truer and nobler even than her works, truer and nobler even than that

masterly picture of her life for which we are indebted to Mrs. Gaskell.

These letters lie before me as I write. Here are the faded sheets of 1832, written in the schoolgirl's hand, filled with the schoolgirl's extravagant terms of endearment, yet enriched here and there by sentences which are worthy to live, some of which have already, indeed, taken their place in the literature of England; and here is the faint pencil note written to "my own dear Nell" out of the writer's "dreary sick-bed" which was so soon to be the bed of death! Between the first letter and that last note what outpourings of the mind of Charlotte Brontë are embodied in this precious pile of cherished manuscript! Over five-and-twenty years of a blameless life this artless record stretches. So far as Charlotte Brontë's history as a woman, and the history of her family are concerned, it is complete for the whole of that period, the only breaks in the story being those which occurred when she and her friend were together. Of her early literary ventures we find little here, for even to her friend she did not dare in the first instance to betray the fearful joys which filled her soul when she at last discovered her true vocation, and spoke to a listening world; but of her later life as an author, of her labors from the day when she owned "Jane Eyre" as the child of her brain, there are constant and abundant traces. Here, too, we read all her secret sorrows, her hopes, her fears, her communings with her own heart. Many things there are in this record too sacred to be given to the world. Even now it is with a tender and a reverent hand that one must touch these "noble letters of the dead;" but those who are allowed to see them, to read them and ponder over them, must feel as I do, that the soul of Charlotte Brontë stands revealed in these unpublished pages, and that only here can we see what manner of woman this really was who in the solitude and obscurity of the Yorkshire hill-parsonage built up for herself an imperishable name, enriched the literature of England with treasures of priceless value, and withal led for nearly forty years a life that was rendered sacred and sublime by the self-repression and patient endurance which were its most marked characteristics.

Mrs. Gaskell has done her work so well that the world would scarcely care to listen to a mere repetition of the Brontë story, even though the story-teller were as gifted as the author of "Ruth" herself. But those who have been permitted to gain a

new insight into Charlotte Brontë's character, those who are allowed to command materials of which the biographer of 1857 could make no use, may venture to lay a tribute-wreath of their own upon the altar of this great woman's memory—a tribute-wreath woven of flowers culled from her own letters. And it cannot be that the time is yet come when the name or the fame or the touching story of the unique and splendid genius to whom we owe "Jane Eyre" will fall upon the ears of English readers like "a tale of little meaning" or of doubtful interest.

II.

IN the late autumn of 1847 the reading public of London suddenly found itself called to admire and wonder at a novel which, without preliminary puff of any kind, had been placed in its hands. "Jane Eyre, by Currer Bell," became the theme of every tongue, and society exhausted itself in conjectures as to the identity of the author, and the real meaning of the book. It was no ordinary book, and it produced no ordinary sensation. Disfigured here and there by certain crudities of thought and by a clumsiness of expression which betrayed the hand of a novice, it was nevertheless lit up from the first page to the last by the fire of a genius the depth and power of which none but the dullest could deny. The hand of its author seized upon the public mind whether it would or no, and society was led captive, in the main against its will, by one who had little of the prevailing spirit of the age, and who either knew nothing of conventionalism, or despised it with heart and soul. Fierce was the revolt against the influence of this new-comer in the wide arena of letters, who had stolen in, as it were in the night, and taken the citadel by surprise. But for the moment all opposition was beaten down by sheer force of genius, and "Jane Eyre" made her way, compelling recognition, wherever men and women were capable of seeing and admitting a rare and extraordinary intellectual supremacy. "How well I remember," says Mr. Thackeray, "the delight and wonder and pleasure with which I read 'Jane Eyre;' sent to me by an author whose name and sex were then alike unknown to me, and how with my own work pressing upon me, I could not, having taken the volumes up, lay them down until they were read through." It was the same everywhere. Even those who saw nothing to commend in the story, those who revolted against its free employment of

great passions and great griefs, and those who were elaborately critical upon its author's ignorance of the ways of polite society, had to confess themselves bound by the spell of the magician. "Jane Eyre" gathered admirers fast; and for every admirer she had a score of readers.

Those who remember that winter of nine-and-twenty years ago know how something like a "Jane Eyre" fever raged among us. The story which had suddenly discovered a glory in uncomeliness, a grandeur in overmastering passion, moulded the fashion of the hour, and "Rochester airs" and "Jane Eyre graces" became the rage. The book, and its fame and influence, travelled beyond the seas with a speed which in those days was marvellous. In sedate New England homes the history of the English governess was read with an avidity which was not surpassed in London itself, and within a few months of the publication of the novel it was famous throughout two continents. No such triumph has been achieved in our time by any other English author; nor can it be said, upon the whole, that many triumphs have been better merited. It happened that this anonymous story, bearing the unmistakable marks of an unpractised hand, was put before the world at the very moment when another great masterpiece of fiction was just beginning to gain the ear of the English public. But at the moment of publication "Jane Eyre" swept past "Vanity Fair" with a marvellous and impetuous speed which left Thackeray's work in the distant background; and its unknown author in a few weeks gained a wider reputation than that which one of the master-minds of the century had been engaged for long years in building up.

The reaction from this exaggerated fame, of course, set in, and it was sharp and severe. The blots in the book were easily hit; its author's unfamiliarity with the stage-business of the play was evident enough—even to dunces; so it was a simple matter to write smart articles at the expense of a novelist who laid himself open to the whole battery of conventional criticism. In "Jane Eyre" there was much painting of souls in their naked reality; the writer had gauged depths which the plummet of the common storyteller could never have sounded, and conflicting passions were marshalled on the stage with a masterful daring which Shakespeare might have envied; but the costumes, the conventional by-play, the scenery, even the wording of the dialogue, were poor enough in all conscience. The

merest playwright or reviewer could have done better in these matters—as the unknown author was soon made to understand. Additional piquancy was given to the attack by the appearance, at the very time when the “Jane Eyre” fever was at its height, of two other novels, written by persons whose sexless names proclaimed them the brothers or the sisters of Currer Bell. Human nature is not so much changed from what it was in 1847 that one need apologize for the readiness with which the reading world in general, and the critical world in particular, adopted the theory that “Wuthering Heights” and “Agnes Gray” were earlier works from the pen which had given them “Jane Eyre.” In “Wuthering Heights” some of the faults of the other book were carried to an extreme, and some of its conspicuous merits were distorted and exaggerated until they became positive blemishes; whilst “Agnes Gray” was a feeble and commonplace tale which it was easy to condemn. So the author of “Jane Eyre” was compelled to bear not only her own burden, but that of the two stories which had followed the successful novel; and the reviewers—ignorant of the fact that they were killing three birds at a single shot—rejoiced in the larger scope which was thus afforded to their critical energy.

Here and there, indeed, a manful fight on behalf of Currer Bell was made by writers who knew nothing but the name and the book. “It is soul speaking to soul,” cried *Fraser’s Magazine* in December, 1847. “It is not a book for prudes,” added *Blackwood*, a few months later; “it is not a book for effeminate and tasteless men; it is for the enjoyment of a feeling heart and critical understanding.” But in the main the verdict of the critics was adverse. It was discovered that the story was improper and immoral; it was said to be filled with descriptions of “courtship after the manner of kangaroos,” and to be impregnated with a “heathenish doctrine of religion;” whilst there went up a perfect chorus of reprobation directed against its “coarseness of language,” “laxity of tone,” “horrid taste,” and “sheer rudeness and vulgarity.” From the book to the author was of course an easy transition. London had been bewildered, and its literary quidnuncs utterly puzzled, when such a story first came forth inscribed with an unknown name. Many had been the rumors eagerly passed from mouth to mouth as to the real identity of Currer Bell. Upon one point there had, indeed, been something like

unanimity among the critics, and the story of “Jane Eyre” had been accepted as something more than a romance, as a genuine autobiography in which real and sorrowful experiences were related. Even the most hostile critic of the book had acknowledged that “it contained the story of struggles with such intense suffering and sorrow as it was sufficient misery to know that any one had conceived, far less passed through.” Where then was this wonderful governess to be found? In what obscure hiding-place could the forlorn soul, whose cry of agony had stirred the hearts of readers everywhere, be discovered? We may smile now, with more of sadness than of bitterness, at the base calumnies of the hour, put forth in mere wantonness and levity by a people ever seeking to know some new thing and to taste some new sensation. The favorite theory of the day—a theory duly elaborated and discussed in the most orthodox and respectable of the reviews—was that Jane Eyre and Becky Sharp were merely different portraits of the same character; and that their original was to be found in the person of a discarded mistress of Mr. Thackeray, who had furnished the great author with a model for the heroine of “Vanity Fair,” and had revenged herself upon him by painting him as the Rochester of “Jane Eyre”! It was after dwelling upon this marvellous theory of the authorship of the story that the *Quarterly Review*, with Pecksniffian charity, calmly summed up its conclusions in these memorable words: “If we ascribe the book to a woman at all, we have no alternative but to ascribe it to one who has for some sufficient reason long forfeited the society of her own sex.”

The world knows the truth now. It knows that these bitter and shameful words were applied to one of the truest and purest of women; to a woman who from her birth had led a life of self-sacrifice and patient endurance; to a woman whose affections dwelt only in the sacred shelter of her home, or with companions as pure and worthy as herself; to one of those few women who can pour out all their hearts in converse with their friends, happy in the assurance that years hence the stranger into whose hands their frank confessions may pass will find nothing there that is not loyal, true, and blameless. There was wonder among the critics, wonder too in the gay world of London, when the secret was revealed, and men were told that the author of “Jane Eyre” was no passionate light-o’-love who had merely

transcribed the sad experiences of her own life; but "an austere little Joan of Arc," pure, gentle, and high-minded, of whom Thackeray himself could say that "a great and holy reverence of right and truth seemed to be with her always." The quidnuncs had searched far and wide for the author of "Jane Eyre;" but we may well doubt whether, when the truth came out at last, they were not more than ever mystified by the discovery that Currer Bell was Charlotte Brontë, the young daughter of a country parson in a remote moorland parish of Yorkshire.

That such a woman should have written such a book was more than a nine days' wonder; and for the key to that which is one of the great marvels and mysteries of English literature we must go to Charlotte Brontë's life itself.

III.

THERE is a striking passage in Mr. Greg's "Enigmas of Life," in which the influence of external circumstances upon the inner lives of men and women is dwelt upon somewhat minutely, and, by way of example, the connection between religious "conviction" and an imperfect digestion is carefully traced out. That we are the creatures of circumstance can hardly be doubted, nor that our destinies are moulded, just as the coral reefs are built, by the action of innumerable influences, each in itself apparently trivial and insignificant. But the habit which leads men to find a full explanation of the lives of those who have attained exceptional distinction in the circumstances amid which their lot has been cast cannot be said to be a very wholesome or happy one. Few have suffered more cruelly from this trick than the Brontë family. Graphic pictures have been presented to the world of their home among the hills, and of their surroundings in their early years; whilst the public have been asked to believe that some great shadow of gloom rested over their lives from their birth, and that to this fact, and to the influence of the moors, must be attributed, not only the peculiar bent of their genius, but the whole color and shape of their lives. Those who are thus determined to account for everything that lies out of the range of common experience would do well, before they attempt to analyze the great mystery of genius, to reveal to us the true cause of the superlative excellence of this or that rare *cru*, the secret which gives *Johannisberg* or *Château d'Yquem* its glory in the eyes of connoisseurs. Circumstances apparently have

little to do with the production of the fragrance and bouquet of these famous wines; for we know that grapes growing close at hand on similar vines and seemingly under precisely similar conditions, warmed by the same sun, refreshed by the same showers, fanned by the same breezes, produce a wine which is comparatively worthless. When the world has expounded this riddle, it will be time enough to deal with that deeper problem of genius on which we are now too apt to lay presumptuous and even violent hands.

The Brontës have suffered grievously from this fashion, inasmuch as their picturesque and striking surroundings have been allowed to obscure our view of the women themselves. We have made a picture of their lives, and have filled in the mere accessories with such pre-Raphaelite minuteness that the distinct individuality of the heroines has been blurred and confused amid the general blaze of vivid color, the crowd of "telling" points. No individual is to be blamed for this fact. The world, as we have seen, was first introduced to "Currer Bell" and her sisters under romantic circumstances; the lives of those simple, sternly honest women were enveloped from the moment when the public made their acquaintance in a certain color of romantic mystery; and when all had passed away, and the time came for the "many-headed beast" to demand the full satisfaction of its curiosity, it would have nothing but the completion of that romance which from the first it had figured in outline for itself.

Who then does not know the salient points of that strange and touching story which tells us how the author of "Jane Eyre" lived and died? Who is not acquainted with that grim parsonage among the hills, where the sisters dwelt amid such uncongenial and even weird influences; living like recluses in the house of a Protestant pastor; associated with sorrow and suffering, and terrible pictures of degrading vice, during their blameless maidenhood; constructing an ideal world of their own, and dwelling in it heedless of the real world which was in motion all around them? Who has not been amused and interested by those graphic pictures of Yorkshire life in the last century, in which the local flavor is so intense and piquant, and which are hardly the less interesting because they relate to an order of things which had passed away entirely before ever the Brontës appeared upon the stage? And who has not been moved by the dark tragedy of Branwell Brontë's life, hinted

at rather than explicitly stated, in Mrs. Gaskell's story, but yet standing out in such prominence that those who know no better may be forgiven if they regard it as having been the powerful and all-pervading influence which made the career of the sisters what it was? The true charm of the history of the Brontës, however, does not lie in these things. It is not to be found in the surroundings of their lives, remarkable and romantic as they were, but in the women themselves, and in those characteristics of their hearts and their intellects which were independent of the accidents of condition. Charlotte herself would have been the first to repudiate the notion that there was anything strikingly exceptional in their outward circumstances. With a horror of being considered eccentric that amounted to a passion, she united an almost morbid dread of the notice of strangers. If she could ever have imagined that readers throughout the world would come to associate her name, and still more the names of her idolized sisters, with the ruder features of the Yorkshire character, or with such a domestic tragedy as that amid which her unhappy brother's life terminated, her spirit would have arisen in indignant revolt against that which she would have regarded almost in the light of a personal outrage.

And yet if their surroundings at Haworth had comparatively little to do with the development of the genius of the three sisters, it cannot be doubted that two influences which Mrs. Gaskell has rightly made prominent in her book did affect their characters, one in a minor, and the other in a very marked degree. The influence of the moors is to be traced both in their lives and their works; whilst far more distinctly is to be traced the influence of their father. As to the first there is little to be said in addition to that which all know already. There is a railway station now at Haworth, and all the world therefore can get to the place without difficulty or inconvenience. Yet even to-day, when the engine goes shrieking past it many times between sunrise and sunset, Haworth is not as other places are. A little manufacturing village sheltered in a nook among the hills and moors which stretch from the heart of Yorkshire into the heart of Lancashire, it bears the vivid impress of its situation. The moors which lie around it for miles on every side are superb during the summer and autumn months. Then Haworth is in its glory: a grey stone hamlet set in the midst of a vast sea of odorous purple,

and swept by breezes which bear into its winding street the hum of the bees and the fragrance of the heather. But it is in the drear, leaden days of winter, when the moors are covered with snow, that we see what Haworth really is. Then we know that this is a place apart from the outer world; even the railway seems to have failed to bring it into the midst of that great West Riding which lies close at hand with its busy mills and multitudes; and the duller therefore can understand that in the days when the railway was not, and Haworth lay quite by itself, neglected and unseen in its upland valley, its people must have been blessed by some at least of those insular peculiarities which distinguished the villagers of Zermatt and Pontresina before the flood of summer tourists had swept into those comparatively remote crannies of the Alps. Nurtured among these lonely moors, and accustomed, as all dwellers on thinly-peopled hillsides are, to study the skies and the weather, as the inhabitants of towns and plains study the faces of men and women, the Brontës unquestionably drew their love of nature, their affection for tempestuous winds and warring clouds, from their residence at Haworth.

But this influence was trivial compared with the hereditary influences of their father's character. Few more remarkable personalities than that of the Rev. Patrick Brontë have obtruded themselves upon the smooth uniformity of modern society. The readers of Mrs. Gaskell's biography know that the incumbent of Haworth was an eccentric man, but the full measure of his eccentricity and waywardness has never yet been revealed to the world. He was an Irishman by birth, but when still a young man he had gone to Yorkshire as a curate, and in Yorkshire he remained to the end of his days. He appears to have been a strange compound of good and evil. That he was not without some good is acknowledged by all who knew him. He had kindly feelings towards most people, and he delighted in the stern rectitude which distinguished many of his Yorkshire flock. When his daughter became famous, no one was better pleased at the circumstance than he was. He cut out of every newspaper every scrap which referred to her; he was proud of her achievements, proud of her intellect, and jealous for her reputation. But throughout his whole life there was but one person with whom he had any real sympathy, and that person was himself. Passionate, self-willed, vain,

habitually cold and distant in his demeanor to those of his own household, he exhibited in a marked degree many of the characteristics which Charlotte Brontë afterwards sketched in the portrait of the Mr. Helston of "Shirley." The stranger who encountered him found a scrupulously polite gentleman of the old school, who was garrulous about his past life, and who needed nothing more than the stimulus of a glass of wine to become talkative on the subject of his conquests over the hearts of the ladies of his congregation. As you listened to the quaintly-attired old man who chatted on with inexhaustible volubility, you possibly conceived the idea that he was a mere fribble, gay, conceited, harmless; but at odd times a searching glance from the keen, deep-sunk eyes warned you that you also were being weighed in the balance by your companion, and that this assumption of light-hearted vanity was far from revealing the real man to you. Only those who dwelt under the same roof knew him as he really was. Among the many stories told of him by his children there is one relating to the meek and gentle woman who was his wife, and whose lot it was to submit to persistent coldness and neglect. Somebody had given Mrs. Brontë a very pretty dress, and her husband, who was, as proud as he was self-willed, had taken offence at the gift. A word to his wife, who lived in habitual dread of her lordly master, would have secured all he wanted; but in his passionate determination that she should not wear the obnoxious garment, he deliberately cut it to pieces and presented her with the tattered fragments. Even during his wife's lifetime he formed the habit of taking his meals alone; he constantly carried loaded pistols in his pockets, and when excited he would fire them at the doors of the outhouses, so that the villagers were quite accustomed to the sound of pistol-shots at any hour of the day in their pastor's house. It would be a mistake to suppose that violence was one of the weapons to which Mr. Brontë habitually resorted. However stern and peremptory might be his dealings with his wife (who soon left him to spend the remainder of his life in a dreary widowhood), his general policy was to secure his end by craft rather than by force. A profound belief in his own superior wisdom was conspicuous among his characteristics, and he felt convinced that no one was too clever to be outwitted by his diplomacy. He had also an amazing persistency, which led him to pursue any course

on which he once embarked with dogged determination. It happened in later years, when his strength was failing, and when at last he began to see his daughter in her true light, that he quarrelled with her regarding the character of one of their friends. The daughter, always dutiful and respectful, found that any effort to stem the torrent of his bitter and unjust wrath when he spoke of the friend who had offended him, was attended by consequences which were positively dangerous. The veins of his forehead swelled, his eyes glared, his voice shook, and she was fain to submit lest her father's passion should prove fatal to him. But when, wounded beyond endurance by his violence and injustice, she withdrew for a few days from her home, and told her father that she would receive no letters from him in which this friend's name was mentioned, the old man's cunning took the place of passion. He wrote long and affectionate letters to her on general subjects; but accompanying each letter was a little slip of paper, which professed to be a note from Charlotte's dog "Flossy" to his "much-respected and beloved mistress," in which the dog, declaring that he saw "a good deal of human nature that was hid from those who had the gift of language," was made to repeat the attacks upon the obnoxious person which Mr. Brontë dared no longer make in his own character.

It was to the care of such a father as this, in the midst of the rude and congenial society of the lonely manufacturing village, that six motherless children, five daughters and one son, were left in the year 1821. The parson's children were not allowed to associate with their little neighbors in the hamlet; their aunt, who came to the parsonage after their mother's death, had scarcely more sympathy with them than their father himself; their only friend was the rough but kindly servant Tabby, who pitied the bairns without understanding them, and whose acts of graciousness were too often of such a character as to give them more pain than pleasure. So they grew up strange, lonely, old-fashioned children, with absolutely no knowledge of the world outside; so quiet and demure in their habits that years afterwards, when they invited some of their Sunday scholars up to the parsonage, and wished to amuse them, they found that they had to ask the scholars to teach them how to play—they had never learned. Carefully secluded from the rest of the world, the little Brontë children

found out fashions of their own in the way of amusement, and marvellous fashions they were. Whilst they were still in the nursery, when the oldest of the family, Maria, was barely nine years old, and Charlotte, the third, was just six, they had begun to take a quaint interest in literature and politics. Heaven knows who it was who first told these wonderful pigmies of the great deeds of a Wellington or the crimes of a Bonaparte; but at an age when other children are generally busy with their bricks or their dolls, and when all life's interests are confined for them within the walls of a nursery, these marvellous Brontës were discussing the life of the great duke, and maintaining the Tory cause as ardently as the oldest and sturdiest of the village politicians in the neighboring inn.

There is a touching story of Charlotte at six years old, which gives us some notion of the ideal life led by the forlorn little girl at this time, when, her two elder sisters having been sent to school, she found herself living at home, the eldest of the motherless brood. She had read the "Pilgrim's Progress," and had been fascinated, young as she was, by that wondrous allegory. Everything in it was to her true and real; her little heart had gone forth with Christian on his pilgrimage to the Golden City, her bright young mind had been fired by the Bedford tinker's description of the glories of the Celestial Place; and she made up her mind that she too would escape from the City of Destruction and gain the haven towards which the weary spirits of every age have turned with eager longing. But where was this glittering city with its streets of gold, its gates of pearl, its walls of precious stones, its streams of life and throne of light? Poor little girl! The only place which seemed to her to answer Bunyan's description of the celestial town was one which she had heard the servants discussing with enthusiasm in the kitchen, and its name was Bradford! So to Bradford little Charlotte Brontë, escaping from that Haworth parsonage which she believed to be a doomed spot, set off one day in 1822. Ingenious persons may speculate if they please upon the sore disappointment which awaited her when, like older people, reaching the place which she had imagined to be heaven, she found that it was only Bradford. But she never even reached her imaginary Golden City. When her tender feet had carried her a mile along the road, she came to a spot where overhanging trees made the highway dark and

gloomy; she imagined that she had come to the Valley of the Shadow of Death, and fearing to go forward, was presently discovered by her nurse cowering by the roadside.

Of the school-days of the Brontës nothing need be said here. Every reader of "Jane Eyre" knows what Charlotte Brontë herself thought of that charitable institution to which she has given so unenviable a notoriety. There she lost her oldest sister, whose fate is described in the tragic tale of Helen Burns; and it was whilst she was at this place that her second sister, Elizabeth, also died. Only one thing need be added to this dismal record of the stay at Cowan Bridge. During the whole time of their sojourn there the young Brontës scarcely ever knew what it was to be free from the pangs of hunger.

Charlotte was now the head of the little family; the remaining members of which were her brother Branwell and her sisters Emily and Anne. Mrs. Gaskell has given the world a vivid picture of the life which these four survivors from the hardships of Cowan Bridge led between the years 1825 and 1831. They spent those years at Haworth, almost without care or sympathy. Their father saw little in their lot to interest him, nothing to drag him out of his selfish absorption in his own pursuits; their aunt, a permanent invalid, conceived that her duty was accomplished when she had taught them a few lessons and insisted on their doing a certain amount of needlework every day. For the rest they were left to themselves, and thus early they showed the bent of their genius by spending their time in writing novels.

Mrs. Gaskell has given us some idea of the character of these juvenile performances in a series of extracts which sufficiently indicate their rare merit. She has, however, paid exclusive attention to Charlotte's productions. All readers of the Brontë story will remember the account of "The Play of the Islanders," and other remarkable specimens, showing with what real vigor and originality Charlotte could handle her pen whilst she was still in the first year of her teens; but those few persons who have seen the whole of the juvenile library of the family, bear testimony to the fact that Branwell and Emily were at least as industrious and successful as Charlotte herself. Indeed, even at this early age, the *disurre* character of Emily's genius was beginning to manifest itself, and her leaning towards weird and supernatural effects was exhibited whilst she composed her first fairy-tales within the

walls of her nursery. It may be well to bear in mind the frequency with which the critics have charged Charlotte Brontë with exaggerating the precocity of children. What we know of the early days of the Brontës proves that what would have been exaggeration in any other person was in the case of Charlotte nothing but a truthful reproduction of her own experiences.

IV.

THE years have slipped away and the Brontës are no longer children. They have passed out of that strange condition of premature activity in which their brains were so busy, their lives so much at variance with the lives of others of their age; they have even "finished" their education, according to the foolish phrase of the world, and having made some acquaintances and a couple of friends at good Miss Wooler's school at Roehead, Charlotte is again at home, young, hopeful, and in her own way merry, waiting with her brother and her sister till that mystery of life which seems filled with hidden charms to those who still have it all before them, shall be revealed.

One bright June morning, in 1833, a handsome carriage and pair is standing opposite the Devonshire Arms at Bolton Bridge, the spot loved by all anglers and artists who know anything of the scenery of the Wharfe. In the carriage with some companions is a young girl, whose face, figure, and manner may be conjured up by all who have read "Shirley;" for this pleasant, comely Yorkshire maiden, as we see her on this particular morning, is identical with the Caroline Helston who figures in the pages of that novel. Miss N—— is waiting for her quondam schoolfellow and present bosom friend, Charlotte Brontë, who is coming with her brother and sisters to join in an excursion to the enchanted site of Bolton Abbey hard by. Presently, on the steep road which stretches across the moors to Keighley, the sound of wheels is heard, mingled with the merry speech and merrier laughter of fresh young voices. Shall we go forward unseen and study the approaching travellers whilst they are still upon the road? Their conveyance is no handsome carriage, but a rickety dog-cart, unmistakably betraying its neighborhood to the carts and ploughs of some rural farmyard. The horse, freshly taken from the fields, is driven by a youth who, in spite of his countrified dress, is no mere bumpkin.

His shock of red hair hangs down in somewhat ragged locks behind his ears, for Branwell Brontë esteems himself a genius and a poet, and, following the fashion of the times, has that abhorrence for the barber's shears which genius is supposed to affect. But the lad's face is a handsome and a striking one; full of Celtic fire and humor, untouched by the slightest shade of care, giving one the impression of somebody altogether hopeful, promising, even brilliant. How gaily he jokes with his three sisters; with what inexhaustible volubility he pours out quotations from his favorite poets, applying them to the lovely scene around him; and with what a mischievous delight, in his superior nerve and mettle, he attempts feats of chariotteering which fill the timid heart of the youngest of the party with sudden terrors! Beside him, in a dress of marvellous plainness and ugliness, stamped with the brand "home-made" in characters which none can mistake, is the eldest of the sisters. Charlotte is talking too; there are bright smiles upon her face; she is enjoying everything around her, the splendid morning, the charms of leafy trees and budding roses, and the ever-musical stream; most of all, perhaps, the charm of her brother's society, and the expectation of that coming meeting with her friend, which is so near at hand. Behind sit a pretty little girl, with fine complexion and delicate regular features, whom the stranger would at once pick out as the beauty of the company, and a tall, rather angular figure, clad in a dress exactly resembling Charlotte's. Emily Brontë does not talk so much as the rest of the party, but her wonderful eyes, brilliant and unfathomable as the pool at the foot of a waterfall, but radiant also with a wealth of tenderness and warmth, show how her soul is expanding under the influences of the scene; how quick she is to note the least prominent of the beauties around her, how intense is her enjoyment of the songs of the birds, the brilliancy of the sunshine, the rich scent of the flower-bespangled hedgerows. If she does not, like Charlotte and Anne, meet her brother's ceaseless flood of sparkling words with opposing currents of speech, she utters at times a strange, deep, guttural sound which those who know her best interpret as the language of a joy too deep for articulate expression. Gaze at them as they pass you in the quiet road, and acknowledge that in spite of their rough and even uncouth exteriors, a happier four could hardly be met with in this

favorite haunt of pleasure-seekers during a long summer's day.

Suddenly the dog-cart rattles noisily into the open space in front of the Devonshire Arms, and the Brontës see the carriage and its occupants. In an instant there is silence; Branwell contrasts his humble equipage with that which already stands at the inn-door, and a flush of mortified pride colors his face; the sisters scarcely note this contrast, but to their dismay they see that their friend is not alone, and each draws a long, deep breath, and prepares for that fiercest of all the ordeals they know, a meeting with entire strangers. The laughter is stilled; even Branwell's volubility is at an end; the glad light dies out of their eyes, and when they alight and submit to the process of being introduced to Miss N——'s companions, their faces are as dull and commonplace as their dresses. It is no imaginary scene we have been watching, Miss N—— still recalls that painful moment when the merry talk and laughter of her friends were quenched at sight of the company awaiting them, and when throughout a day to which all had looked forward with anticipations of delight, the three Brontës clung to each other or to their friend, scarcely venturing to speak above a whisper, and betraying in every look and word the positive agony which filled their hearts when a stranger approached them. It was this excessive shyness in the company of those who were unfamiliar to them which was the most marked characteristic of the sisters. The weakness was as much physical as moral; and those who suppose that it was accompanied by any morbid depression of spirits, or any lack of vigor and liveliness when the incubus of a stranger's presence was removed, entirely mistake their true character. Unhappily, first impressions are always strongest, and running through the whole of Mrs. Gaskell's story, may be seen the impression produced at her first meeting with Charlotte Brontë by her nervous shrinking and awkwardness in the midst of unknown faces.

It was not thus with those who, brought into the closest of all fellowship with her, the fellowship of school society, knew the secrets of her heart far better than did any who became acquainted with her in after life. To such the real Charlotte Brontë, who knew no timidity in their presence, was a bold, clever, outspoken, and impulsive girl; ready to laugh with the merriest, and not even indisposed to join in practical jokes with the rest of her schoolfellows.

The picture we get in the "Life" is that of a victim to secret terrors and superstitious fancies. The real Charlotte Brontë, when stories were current as to the presence of a ghost in the upper chambers of the old school-house at Roehead, did not hesitate to go up to these rooms alone and in the darkness of a winter's night, leaving her companions shivering in terror round the fire down-stairs. When she had left school, and began that correspondence with Miss N—— which is the great source of our knowledge, not merely of the course of her life, but of the secrets of her heart, it must not be supposed that she wrote always in that serious spirit which pervades most of the letters quoted by Mrs. Gaskell. On the contrary, those who have access to the letters will find that even some of the passages given in the "Life" are allied to sentences showing that the frame of mind in which they were written was very different from that which it appears to have been. The following letter, written from Haworth in the beginning of 1835, is an example:—

Well, here I am as completely separated from you as if a hundred, instead of seventeen, miles intervened between us. I can neither hear you nor see you nor feel you. You are become a mere thought, an unsubstantial impression on the memory, which, however, is happily incapable of erasure. My journey home was rather melancholy, and would have been very much so but for the presence and conversation of my worthy companion. I found him a very intelligent man. He told me the adventures of his sailor's life, his shipwreck and the hurricane he had witnessed in the West Indies, with a much better flow of language than many of far greater pretensions are masters of. I thought he appeared a little dismayed by the wildness of the country round Haworth, and I imagine he has carried back a pretty report of it.

What do you think of the course politics are taking? I make this inquiry because I now think you have a wholesome interest in the matter; formerly you did not care greatly about it. Baines, you see, is triumphant. Wretch! I am a hearty hater, and if there is any one I thoroughly abhor it is that man. But the Opposition is divided. Red-hots and luke-warms; and the duke (par excellence the duke) and Sir Robert Peel show no signs of insecurity, although they have been twice beat. So, "Courage, *mon amie!*" Heaven defend the right! as the old cavaliers used to say before they joined battle. Now, Ellen, laugh heartily at all that rodomontade. But you have brought it on yourself. Don't you remember telling me to write such letters to you as I wrote to Mary? There's a specimen! Hereafter should follow a long disquisition on books; but I'll spare you that.

Those who turn to Mrs. Gaskell's "Life" will find one of the sentences in this letter quoted, but without the burst of laughter over "all that rodomontade" at the end which shows that Charlotte's interest in politics was not unmingled with the happy levity of youth. Still more striking as an illustration of her true character, with its infinite variety of moods, its sudden transition from grave to gay, is the letter I now quote:—

Last Saturday afternoon, being in one of my sentimental humors, I sat down and wrote to you such a note as I ought to have written to none but M——, who is nearly as mad as myself; to-day, when I glanced it over, it occurred to me that Ellen's calm eye would look at this with scorn, so I determined to concoct some production more fit for the inspection of common sense. I will not tell you all I think and feel about you, Ellen. I will preserve unbroken that reserve which alone enables me to maintain a decent character for judgment; but for that I should long ago have been set down by all who know me as a Frenchified fool. You have been very kind to me of late, and gentle; and you have spared me those little sallies of ridicule which, owing to my miserable and wretched touchiness of character used formerly to make me wince as if I had been touched with a hot iron; things that nobody else cares for enter into my mind and rankle there like venom. I know these feelings are absurd, and therefore I try to hide them; but they only sting the deeper for concealment, and I'm an idiot! Ellen, I wish I could live with you always, I begin to cling to you more fondly than ever I did. If we had but a cottage and a competency of our own, I do think we might live and love on till death, without being dependent on any third person for happiness.

Mrs. Gaskell has made a very partial and imperfect use of this letter by quoting merely from the words "You have been very kind to me of late," down to "they only sting the deeper for concealment." Thus it will be seen that an importance is given to an evanescent mood which it was far from meriting, and that lighter side to Charlotte's character which was prominent enough to her nearest and dearest friends is entirely concealed from the outer world. Again, I say, we must not blame Mrs. Gaskell. Such sentences as those which she omitted from the letter I have just given are not only entirely inconsistent with that ideal portrait of "Currer Bell" which the world had formed for itself out of the bare materials in existence during the author's lifetime; but are also utterly at variance with Mrs. Gaskell's personal conception of Charlotte Brontë's character, founded upon her brief acquaintance

with her during her years of loneliness and fame.

The quick transitions which marked her moods in converse with her friends may be traced all through her letters to Miss N——. The quotations I have already made show how suddenly on the same page she passes from gaiety to sadness; and so her letters, dealing as they do with an endless variety of topics, reflect only the mood of the writer at the moment that she penned them, and it is only by reading and studying the whole, not by selecting those which reflect a particular phase of her character, that we can complete the portrait we would fain produce.

Here are some extracts from letters which are not to be found in the "Life," and which illustrate what I have said. They were all written between the beginning of 1832 and the end of 1835:—

Tell M—— I hope she will derive benefit from the perusal of Cobbett's lucubrations; but I beg she will on no account burden her memory with passages to be repeated for my edification, lest I should not fully appreciate either her kindness or their merit; since that worthy personage and his principles, whether private or political, are no great favorites of mine.

I am really very much obliged to you [she writes in September, 1832] for your well-filled and *very* interesting letter. It forms a striking contrast to my brief, meagre epistles; but I know you will excuse the utter dearth of news visible in them when you consider the situation in which I am placed, quite out of the reach of all intelligence except what I obtain through the medium of the newspapers, and I believe you would not find much to interest you in a political discussion, or a summary of the accidents of the week. . . . I am sorry, very sorry, that Miss —— has turned out to be so different from what you thought her; but, my dearest Ellen, you must never expect perfection in this world; and I know your naturally confiding and affectionate disposition has led you to imagine that Miss —— was almost faultless. . . . I think, dearest Ellen, our friendship is destined to form an exception to the general rule regarding school friendships. At least I know that absence has not in the least abated the sisterly affection which I feel towards you.

Your last letter revealed a state of mind which promised much. As I read it, I could not help wishing that my own feelings more nearly resembled yours; but unhappily all the good thoughts that enter *my* mind evaporate almost before I have had time to ascertain their existence. Every right resolution which I form is so transient, so fragile, and so easily broken, that I sometimes fear I shall never be what I ought.

I write a hasty line to assure you we shall be happy to see you on the day you mention. As you are now acquainted with the neighborhood and its total want of society, and with our plain, monotonous mode of life, I do not fear so much as I used to do, that you will be disappointed with the dulness and sameness of your visit. One thing however will make the daily routine more unvaried than ever. Branwell, who used to enliven us, is to leave us in a few days, and enter the situation of a private tutor in the neighborhood of U—. How he will like to settle remains yet to be seen. At present he is full of hope and resolution. I, who know his variable nature and his strong turn for active life, dare not be too sanguine. We are as busy as possible in preparing for his departure, and shirt-making and collar-stitching fully occupy our time.

April, 1835.

The election! the election! that cry has rung even among our lonely hills like the blast of a trumpet. How has it been round the populous neighborhood of B—? Under what banner have your brothers ranged themselves? The blue or the yellow? Use your influence with them; entreat them, if it be necessary on your knees, to stand by their country and religion in this day of danger! . . . Stuart Wortley, the son of the most patriotic patrician Yorkshire owns, must be elected the representative of his native province. Lord Morpeth was at Haworth last week, and I saw him. My opinion of his lordship is recorded in a letter I wrote yesterday to Mary. It is not worth writing over again, so I will not trouble you with it here.

Even these brief extracts will show that Charlotte Brontë's life at this time was not a morbid one. These years between 1832 and 1835 must be counted among the happiest of her life—of all the lives of the little household at Haworth, in fact. The young people were accustomed to their father's coldness and eccentricity, and to their aunt's dainty distaste for all northern customs and northern people, themselves included. Shy they were and peculiar, alike in their modes of life and their modes of thought; but there was a wholesome, healthy happiness about all of them that gave promise of peaceful lives hereafter. Some literary efforts of a humble kind brightened their hopes at this time. Charlotte had written some juvenile poems (not now worth reprinting), and she sought the opinion of Southey upon them. The poet-laureate gave her a kindly and considerate answer, which did not encourage her to persevere in these efforts; nor was an attempt by Branwell to secure the patronage of Wordsworth for some productions of his own more successful. Had anybody ventured into the wilds of Ha-

worth parish at this new year of 1835, and made acquaintance with the parson's family, it is easy to say upon whom the attention of the stranger would have been riveted. Branwell Brontë, of whom casual mention is made in one of the foregoing letters, was the hope and pride of the little household. All who knew him at this time bear testimony to his remarkable talents, his striking graces. Small in stature like Charlotte herself, he was endowed with a rare personal beauty. But it was in his intellectual gifts that his chief charm was found. Even his father's dull parishioners recognized the fire of genius in the lad; and any one who cares to go to Haworth now and inquire into the story of the Brontës, will find that the most vivid reminiscences, the fondest memories of the older people in the village, centre in this hapless youth. Ambitious and clever, he seemed destined to play a considerable part in the world. His conversational powers were remarkable; he gave promise of more than ordinary ability as an artist, and he had even as a boy written verses of no common power. Among other accomplishments, more curious than useful, of which he could boast, was the ability to write two letters simultaneously. It is but a small trait in the history of this remarkable family, yet it deserves to be noticed, that its least successful member excelled Napoleon himself in one respect. The great conqueror could dictate half-a-dozen letters concurrently to his secretaries. Branwell Brontë could do more than this. With a pen in each hand, he could write two different letters at the same moment.

Charlotte was Branwell's senior by one year. In 1835, when in her nineteenth year, she was by no means the unattractive person she has been represented as being. There is a little caricature sketched by herself lying before me as I write. In it all the more awkward of her physical points are ingeniously exaggerated. The prominent forehead bulges out in an aggressive manner, suggestive of hydrocephalus, the nose, "tip-tilted like the petal of a flower," and the mouth made unnecessarily large; whilst the little figure is clumsy and ungainly. But though she could never pretend to beauty, she had redeeming features, her eyes, hair, and massive forehead all being attractive points. Emily, who was two years her junior, had, like Charlotte, a bad complexion; but she was tall and well-formed, whilst her eyes were of remarkable beauty. All through her life her temperament was more than merely peculiar. She inherited

not a little of her father's eccentricity, untempered by her father's *savoir faire*. Her aversion to strangers has been already mentioned. When the curates, who formed the only society of Haworth, found their way to the parsonage, she avoided them as though they had brought the pestilence in their train; on the rare occasions when she went out into the world she would sit absolutely silent in the company of those who were unfamiliar to her. So intense was this reserve that even in her own family, where alone she was at ease, something like dread was mingled with the affection felt towards her. On one occasion, whilst Charlotte's friend was visiting the parsonage, Charlotte herself was unable through illness to take any walks with her. To the amazement of the household Emily volunteered to accompany Miss N—— on a ramble over the moors. They set off together, and the girl threw aside her reserve and talked with a freedom and vigor which gave evidence of the real strength of her character. Her companion was charmed with her intelligence and geniality. But on returning to the parsonage Charlotte was found awaiting them, and as soon as she had a chance of doing so she anxiously put to Miss N—— the question, "How did Emily behave herself?" It was the first time she had ever been known to invite the company of any one outside the narrow limits of the family circle. Her chief delight was to roam on the moors, followed by her dogs, to whom she would whistle in masculine fashion. Her heart indeed was given to these dumb creatures of the earth. She never forgave those who ill-treated them, nor trusted those whom they disliked. One is reminded of Shelley's "Sensitive Plant" by some traits of Emily Brontë:—

If the flowers had been her own infants she
Could never have nursed them more tenderly;
and, like the lady of the poem, her tenderness and charity could reach even

the poor banished insects, whose intent,
Although they did ill, was innocent.

One instance of her remarkable personal courage is related in "Shirley," where she herself is sketched under the character of the heroine. It is her adventure with the mad dog which bit her at the door of the parsonage kitchen whilst she was offering it water. The brave girl took an iron from the fire where it chanced to be heating, and immediately cauterized the wound on her arm, making a broad, deep scar, which was there until the day of her

death. Not until many weeks after did she tell her sisters what had happened. Passionately fond of her home among the hills, and of the rough Yorkshire people among whom she had been reared, she sickened and pined away when absent from Haworth. A strange untamed and untamable character was hers; and none but her two sisters ever seem to have appreciated her remarkable merits, or to have recognized the fine though immature genius which shows itself in every line of the weird story of "Wuthering Heights."

Anne, the youngest of the family, had beauty in addition to her other gifts. Intellectually she was greatly inferior to her sisters; but her mildness and sweetness of temperament won the affections of many who were repelled by the harsher exteriors of Charlotte and Emily.

This was the family which lived happily and quietly among the hills during those years when life with its vicissitudes still lay in the distance. Gay their existence could not be called; but their letters show that it was unquestionably peaceful, happy, and wholesome.

V.

MOVED by the hope of lightening the family expenses and enabling Branwell to get a thorough artistic training at the Royal Academy, Charlotte resolved to go out as a governess. Her first "place" was at her old school at Roehead, where she was with her friend Miss Wooler, and where she was also very near the home of her confidante, Miss N——. Emily went with her for a time; but she soon sickened and pined for the moors, and after a trial of but a few months she returned to Haworth. A great deal of sympathy has been bestowed upon the Brontës in connection with their days as governesses; nor am I prepared to say that this sympathy is wholly misplaced. Their reserve, their affection for each other, their ignorance of the world, combined to make "the cup of life as it is mixed for the class termed governesses"—to use Charlotte's own phrase—particularly distasteful to them. But it is a mistake to suppose that they were treated with harshness during their governess life, or that Charlotte, at least, felt her trials at all unbearable. It was decidedly unpleasant to sacrifice the independence and the family companionship of Haworth for drudgery and loneliness in the household of a stranger; but it was a duty, and as such it was accepted without repining by two, at least, of the sisters. Emily's peculiar temperament

made her quite unfitted for life among strangers; she made many attempts to overcome her reserve, but all were unavailing; and after a brief experience in one or two families in different parts of Yorkshire, she returned to Haworth to reside there permanently as her father's house-keeper. There is no need to dwell upon this episode in the lives of the Brontës. They were living among unfamiliar faces, and had little temptation to display themselves in their true characters, but extracts from a few of Charlotte's letters to her friends will show something of the course of her thought at this time. With the exception of a detached sentence or two these letters will be quite new to the readers of Mrs. Gaskell's "Life:"—

I have been waiting for an opportunity of sending a letter to you as you wished; but as no such opportunity offers itself, I have at length determined to write to you by post, fearing that if I delayed any longer you would attribute my tardiness to indifference. I can scarcely realize the distance that lies between us, or the length of time which may elapse before we meet again. Now, Ellen, I have no news to tell you, no changes to communicate. My life since I saw you last has passed away as monotonously and unvaryingly as ever—nothing but teach—teach—teach, from morning till night. The greatest variety I ever have is afforded by a letter from you, a call from the T——'s, or by meeting with a pleasant new book. The "Life of Oberlin" and Leigh Richmond's "Domestic Portraiture," are the last of this description I have perused. The latter work strongly attracted and strangely fascinated my attention. Beg, borrow, or steal it without delay; and read the "Mémorial of Richmond." That short record of a brief and uneventful life I shall never forget. It is beautiful, not on account of the language in which it is written, not on account of the incidents it details, but because of the simple narration it gives of the life and death of a young, talented, sincere Christian. Get the book, Ellen (I wish I had it to give you), read it, and tell me what you think of it. Yesterday I heard that you had been ill since you were in London. I hope you are better now. Are you any happier than you were? Try to reconcile your mind to circumstances, and exert the quiet fortitude of which I know you are not destitute. Your absence leaves a sort of vacancy in my feelings which nothing has as yet offered of sufficient interest to supply. I do not forget ten o'clock. I remember it every night, and if a sincere petition for your welfare will do you any good you will be benefited. I know the Bible says: "The prayer of the *righteous* availeth much," and I am *not* *righteous*. Nevertheless I believe God despises no application that is uttered in sincerity. My own dear E——, good-bye. I can write no

more, for I am called to a less pleasant avocation.

DEWSBURY MOOR, Oct. 2, 1836.

I should have written to you a week ago, but my time has of late been so wholly taken up that till now I have really not had an opportunity of answering your last letter. I assure you I feel the kindness of so early a reply to my tardy correspondence. It gave me a sting of self-reproach. . . . My sister Emily is gone into a situation as teacher in a large school of near forty pupils near Halifax. I have had one letter from her since her departure. It gives an appalling account of her duties. Hard labor from six in the morning till near eleven at night, with only one half-hour of exercise between. This is slavery. I fear she will never stand it. It gives me sincere pleasure, my dear Ellen, to learn that you have at last found a few associates of congenial minds. I cannot conceive a life more dreary than that passed amidst sights, sounds, and companions all alien to the nature within us. From the tenor of your letters it seems that your mind remains fixed as it ever was, in no wise dazzled by novelty or warped by evil example. I am thankful for it. I could not help smiling at the paragraphs which related to —. There was in them a touch of the genuine unworldly simplicity which forms part of your character. Ellen, depend upon it, all people have their dark side. Though some possess the power of throwing a fair veil over the defects, close acquaintance slowly removes the screen, and one by one the blots appear; till at last we see the pattern of perfection all slurred over with stains which even affection cannot efface.

The affectionate commendations of her friend are constantly accompanied by references of a very different character to herself.

If I like people [she says in one of her letters] it is my nature to tell them so, and I am not afraid of offering incense to your vanity. It is from religion that you derive your chief charm, and may its influence always preserve you as pure, as unassuming, and as benevolent in thought and deed as you are now. What am I compared to you? I feel my own utter worthlessness when I make the comparison. I'm a very coarse, commonplace wretch! I have some qualities that make me very miserable, some feelings that you can have no participation in—that few, very few people in the world can at all understand. I don't pride myself on these peculiarities. I strive to conceal and suppress them as much as I can, but they burst out sometimes, and then those who see the explosion despise me, and I hate myself for days afterwards.

All my notes to you, Ellen, are written in a hurry. I am now snatching an opportunity. Mr. J—— is here; by his means it will be transmitted to Miss E——, by her means to

X—, by his means to you. I do not blame you for not coming to see me. I am sure you have been prevented by sufficient reasons; but I do long to see you, and I hope I shall be gratified momentarily, at least, ere long. Next Friday, if all be well, I shall go to G—. On Sunday I hope I shall at least catch a glimpse of you. Week after week I have lived on the expectation of your coming. Week after week I have been disappointed. I have not regretted what I said in my last note to you. The confession was wrung from me by sympathy and kindness, such as I can never be sufficiently thankful for. I feel in a strange state of mind; still gloomy, but not despairing. I keep trying to do right, checking wrong feelings, repressing wrong thoughts—but still—every instant I find myself going astray. I have a constant tendency to scorn people who are far better than I am. A horror at the idea of becoming one of a certain set—a dread lest if I made the slightest profession I should sink at once into Phariseism, merge wholly in the ranks of the self-righteous. In writing at this moment I feel an irksome disgust at the idea of using a single phrase that sounds like religious cant. I abhor myself; I despise myself. If the doctrine of Calvin be true, I am already an outcast. You cannot imagine how hard, rebellious, and intractable all my feelings are. When I begin to study on the subject I almost grow blasphemous, atheistical in my sentiments. Don't desert me—I should be horrified at me. You know what I am. I wish I could see you, my darling. I have lavished the warmest affections of a very hot, tenacious heart upon you. If you grow cold it is over.

Here it will be seen that the religious struggle was renewed. The woman who was afterwards to be accused of "heathenism" was going through tortures such as Cowper knew in his darkest hours, and, like him, was acquiring faith, humility, and resignation in the midst of the conflict. But such letters as this are only episodal; in general she writes cheerfully, sometimes even merrily.

What would the *Quarterly Reviewer* and the other charitable people, who openly declared their conviction that the author of "Jane Eyre" was an improper person, who had written an improper book, have said had they been told that she had written the following letter on the subject of her first offer of marriage—written it, too, at the time when she was a governess, and in spite of the fact that the offer opened up to her a way of escape from all anxiety as to her future life?

You ask me whether I have received a letter from T—. I have about a week since. The contents I confess did a little surprise me; but I kept them to myself, and unless you had questioned me on the subject I would

never have adverted to it. T— says he is comfortably settled at —, and that his health is much improved. He then intimates that in due time he will want a wife, and frankly asks me to be that wife. Altogether the letter is written without cant or flattery, and in a common-sense style which does credit to his judgment. Now there were in this proposal some things that might have proved a strong temptation. I thought if I were to marry so — could live with me, and how happy I should be. But again I asked myself two questions. Do I love T— as much as a woman ought to love her husband? Am I the person best qualified to make him happy? Alas! my conscience answered "no" to both these questions. I felt that though I esteemed T—, though I had a kindly leaning towards him, because he is an amiable, well-disposed man, yet I had not and never could have that intense attachment which would make me willing to die for him—and if ever I marry it must be in that light of adoration that I will regard my husband. Ten to one I shall never have the chance again; but *n'importe*. Moreover I was aware he knew so little of me he could hardly be conscious to whom he was writing. Why it would startle him to see me in my natural home character. He would think I was a wild, romantic enthusiast indeed. I could not sit all day long making a grave face before my husband. I would laugh and satirize, and say whatever came into my head first; and if he were a clever man and loved me, the whole world weighed in the balance against his smallest wish would be light as air. Could I, knowing my mind to be such as that, conscientiously say that I would take a grave, quiet young man like T—? No; it would have been deceiving him, and deception of that sort is beneath me. So I wrote a long letter back in which I expressed my refusal as gently as I could, and also candidly avowed my reasons for that refusal. I described to him, too, the sort of character I thought would suit him for a wife.

The girl who could thus calmly decline a more than merely "eligible" offer, and thus honestly state her reasons for doing so to the friend she trusted, was strangely different from the author of "Jane Eyre" pictured by the critics and the public. Perhaps the full cost of the refusal related in the foregoing letter is only made clear when it is brought into contrast with such a confession as the following, made very soon afterwards:—

I am miserable when I allow myself to dwell on the necessity of spending my life as a governess. The chief requisite for that station seems to me to be the power of taking things easily when they come, and of making oneself comfortable and at home wherever one may chance to be—qualities in which all our family are singularly deficient. I know I cannot live with a person like Mrs. —; but I

hope all women are not like her, and my motto is, "Try again."

From one of her situations as governess in a private family (she had long since left the kind shelter of Miss Wooler's house) she writes in 1841 a series of letters showing how little she relished the "cup of life as it is mixed for the class termed governesses."

It is twelve o'clock at night; but I must just write you a word before I go to bed. If you think I'm going to refuse your invitation, or if you sent it me with that idea, you're mistaken. As soon as I had read your shabby little note, I gathered up my spirits directly, walked on the impulse of the moment into Mrs. —'s presence, popped the question, and for two minutes received no answer. "Will she refuse me when I work so hard for her?" thought I. "Ye—e—es," drawled madam in a reluctant, cold tone. "Thank you, madam!" said I with extreme cordiality, and was marching from the room when she recalled me with "You'd better go on Saturday afternoon then, when the children have holiday, and if you return in time for them to have all their lessons on Monday morning, I don't see that much will be lost." You *are* a genuine Turk, thought I; but again I assented, and so the bargain was struck. Saturday after next, then, is the day appointed. I'll come, God knows, with a thankful and joyful heart, glad of a day's reprieve from labor. If you don't send the gig I'll walk. I am coming to taste the pleasure of liberty; a bit of pleasant congenial talk, and a sight of two or three faces I like. God bless you! I want to see you again. Huzza for Saturday afternoon after next! Good night, my lass!

T. WEMYSS REID.

From The Contemporary Review.
AN EXCURSION IN FORMOSA.

A BULWARK of islands, single and in groups, protects — like some great system of natural fortification — the eastern shore of Asia. Beginning at the southern extremity of Kamschatka, this chain of advanced works extends beyond the northern tropic. At first come the Kurile Islands, then the Japanese group, then the Linschotten Isles, the Loochooan Archipelago, and the Meiacosima group resting, as on a flank defence, on the great island of Formosa. There is nothing fanciful in this comparison of the long line of islands, that is interposed between the Asiatic coast and the broad expanse of the North Pacific, to a protective fortification. Behind this screen the ports of China from Amoy to the Yellow Sea enjoy an almost,

if not quite, perfect immunity from that terrible scourge of the Eastern seas, the dreaded typhoon.* Round the right flank of the line they sweep with unbroken fury, and, repulsed by the lofty mountains of Formosa, carry havoc and dismay to Hong-Kong and Macao on the southern coast of China. Thus this great island fills in the geography of the far East a position commensurate with its physical characteristics, and with the interest with which it has long been regarded.

Few names have been more correctly bestowed. Formosa is indeed majestic in its beauty. It may be regarded as a fortunate event in the history of geographical nomenclature that its sponsors were early Spanish navigators, who inherited a sense of the beautiful and the romantic with their southern blood. The seas about are studded with the uncouth patronymics of rival Dutch explorers, which throw into brighter contrast this well-deserved appellation. A line of Alpine heights runs along the island in the interior. On the west this splendid range sinks into an extensive plain, fertile and rich in streams, which has received a multitude of industrious colonists from the neighboring Chinese province of Foh-kien. There these colonists have built cities and have turned the country into a garden. But where the mountains begin, their occupation ceases; and the eastern part of the island, abrupt and mountainous to the very shore, is inhabited by tribes of savages who still live in unreclaimed barbarism. The territory in the possession of the Chinese stretches across the northern end of the island from sea to sea; but its extent on the Pacific shore, is very limited, and may be said to end at the seaport of Kelung.

Coasting along the eastern side the voyager is repeatedly struck by the magnificence of the scenery. The central range rises to a height of above twelve thousand feet; whilst between it and the water are mountains of an elevation at least half as great. Their outline is at once beautiful and fantastic. Domes, and peaks, and wall-like precipices succeed each other in striking variety. A brilliant verdure clothes their sides, down which dash cascades that shine like silver in the tropical sunlight. Occasionally on rounding a

* "They (the typhoons) do not extend into the Formosa Strait. . . . There is only one case on record of their having reached Amoy; and northward of Formosa they are of rare occurrence. . . . Eastward of Formosa they extend as far as the Bonin Islands and probably right across the Pacific." — "China Sea Directory," iii., p. 8. Published by order of the lords commissioners of the Admiralty. London, 1874.

headland a deep gorge is revealed, and in the shadow cast by the enclosing heights can be dimly discerned the outlines of a native village.

A short excursion made into the country near Kelung enabled me to see many of the beauties of the island. It was undertaken chiefly with a view to visit the coal-mines which abound in that part, and to form some idea of the manner of working them and of transporting the coal to the coast for exportation. As May had already begun, and as the weather was hotter than was pleasant for travelling on foot in the middle of the day, a start was made in the early morning. Soon after six o'clock I landed with one companion on the little island which forms the eastern side of the harbor, and to which Europeans have given the name of Palm Island. On it there are two villages, one inhabited exclusively by Chinese, and the other by a mixed race of Chinese and Peppy-hoans, a tribe of natives less barbarous than their fellows, who here, at least, have to some extent coalesced with the colonists from the mainland.

Our landing took place at the nearest point of the former village. On our way we passed several of the inhabitants engaged in fishing in *sampans*, or Chinese boats, which seemed like rude copies of those found at Amoy, and at all other places to which the roving natives of Foh-kien migrate. We were received by a respectable concourse of the remaining villagers. It was soon evident that Europeans were not frequent visitors, as whenever we encountered women or the younger children they fled to their houses at first sight of us. The men, and some dozen valiant little urchins of more mature age, perhaps eight or ten years, exhibited no signs of alarm or even of surprise, and seemed anxious to show us every civility. The former, in several cases, came forward and offered us their long bamboo pipes to smoke; whilst the latter, with that inexpressible love of fun so characteristic of Chinese children, did their best to heighten the terrors of their younger companions by shouting loudly at any who exhibited signs of fear at our approach.

Fishing-villages in any part of the world are seldom remarkable for cleanliness; and a Chinese fishing-village might be expected to surpass all others in abominations of sight and smell. This one, however, of Searle-how seemed an exception to the rule. There was a very remarkable air of comfort and well-being

about the place. The boats were numerous and well found. The street was laid out with a fair amount of regularity. The inhabitants were well dressed, and the women, all tottering on their poor crushed feet, wore many ornaments. A temple of considerable size occupied a prominent position, and, strange to say, it was comparatively clean and in good repair, whilst, still stranger, an attendant was positively engaged in sweeping and in generally embellishing the paved space in front of the central door. Early as it was, voices of small Chinese scholars learning their lessons came from a wing of the building on the right. The houses were well-built, comfortable, and cleanly. As a rule one plan was followed. A large central building, generally of neatly cut blocks of the sandstone of which the island is formed, ran parallel to the roadway; from it a wing jutted out at right angles at either end; the whole house thus forming three sides of a square. In the central building was a large hall, containing, right opposite the door, the family altar and the shrine of the household deities. This seemed to be the principal living-room of the dwelling; the wings were chiefly used as store-houses. We were civilly invited by signs to enter and inspect one of the best of the houses, and were even tempted by the offer of chairs; but as we had some distance to go, we declined the friendly invitation. In front of the village was a noble tree, throwing a vast shade around it, under which the whole village might assemble.

The other village was on the same beach, a few hundred yards further on. Behind both there was much cultivated land, many plots being laid out as vegetable gardens and rice-fields. The high style of Chinese cultivation was everywhere noticeable, as also the rarer sight of well-kept fences and hedges. The houses at this latter place were not so large nor so well-built as those at Searle-how. Many were constructed of wooden frames filled in with fragments of coral from the beach, but in design they were almost exactly similar. Here also in front of the village was a magnificent tree of even nobler proportions than the other. Its trunk was a gnarled and knotted mass bound and overlaid with the stems of innumerable creepers. Beneath a vertical sun it would cast a shadow considerably over a hundred feet in diameter; whilst so thick was its foliage that not a ray could penetrate it.

The Peppy-hoan villagers bore some

resemblance to their Chinese neighbors. They had adopted the Chinese dress, and the men had shaven heads and the regular queue. The women, on the contrary, dressed their hair in a different fashion, tying it up in a loose knot behind with some bright-colored cord. Their feet too were bare and as nature had formed them. They were a tall, fine-looking people. The men had a sturdier and more manly air than is common amongst Chinamen, whilst the women could boast a stature and a stateliness of figure almost unknown amongst their Chinese sisters. Handsome faces were not common; their complexions somewhat resembled those of the lighter-skinned Chinese, though they were decidedly of a fresher hue than those of the yellow-visaged nation. The type of feature was unmistakably Mongolian. The island is separated from the mainland by a narrow strait, through which there was a boiling tide rushing at the time of our visit. We tried to engage a boat to cross it, but it was intimated to us by signs that the owners were away. At length a boat of large size deeply laden was seen coming through the strait with the tide. We called out to the boatmen, and made them understand our wish to be ferried across. With some little difficulty in that swift current they succeeded in picking us up, and landing us at a pretty little bay on the opposite shore. There were four men in the boat, all Chinese. When we landed we offered them a small sum of money as our fare; to our astonishment they civilly but firmly refused to accept it, though they must have been considerably delayed in their voyage, and two of them had actually got into the water and stood in it up to their waists to assist us in landing.

The scenery of the mainland was very fine. Even the views we had had on our way up the coast had not at all prepared us for it. The copious moisture of a tropical climate was apparent in the rich luxuriance of the vegetation. The varied outlines of the heights which rose on either side told of earthquakes and of a volcanic region. Inland from the head of the little bay to which we had been brought across ran a narrow valley, through which water had at some time evidently forced its way. On each hand were tokens of a great upheaval. The strata dipped steeply towards the west; and the edges of the seams of rocks were scored and eaten away by the action of the water. Yellow sandstone and masses of coralline limestone abounded. The

former exhibited in the little promontories and points that jutted out into the sea the strangest forms. Blocks of the soft stone stood upright near the water's edge, and here and there they were rounded off and scraped away near the lower part till they looked like gigantic mushrooms, or huge egg-cups or wineglasses, or took some other quaint shape. In some cases so exact was the resemblance to these objects that it was difficult to believe that art had not been called in to aid nature in fashioning them.

The bottom of the valley was laid out in rice-plots. The rice had been recently transplanted, and each plant had a clear space around it of several inches. The surface of the ground was covered to a slight depth with water. The brilliant green of the young rice formed a charming contrast to the more sombre foliage of the shrubs and trees which half hid the steep cliffs on both sides of the valley. The number and beauty of the wild-flowers were extraordinary. We were first struck by a convolvulus of enormous size, of a rich violet hue striped with crimson, which covered the bank by the side of which the path ran. Then a white lily of exquisite shape and delicate perfume delighted us. Orchids of varied colors fringed the pathway. A graceful creeper with a tiny lilac blossom trailed along the narrow strip of sward that edged the rice-field on our right. A cottage or two lay half-hidden behind a hedge of bamboo and screw-pine, above which waved the graceful leaves of the plantain-tree. A splendid variety of tree-fern, like a dwarf palm, grew in great profusion. A variety of willow is a common object in most Chinese villages, and some of the delicately-leaved trees which we met with in our further progress, bore no inconsiderable resemblance to the aspen.

At the head of the valley we came upon the sea. A sandy beach swept round with a wide curve towards the east, beneath a line of almost perpendicular sandstone cliffs. Midway along it was a little hamlet of fishermen's cottages. Some of the inhabitants were on the beach repairing their boats and nets. Imitating in pantomimic action the occupation of coal-miners, we asked, and were readily shown the way to the pits. Our road lay by the shore beneath the cliffs, then round the headland which they formed. A geologist would have been charmed with the scene laid open to our view. At the water's edge were numberless rocky pinnacles, and cup-shaped masses like those

we had already seen. The beach itself was strewn with boulders in every stage of formation. Some of the sandstone stems were so eaten away by the waves that the globular mass on the summit was ready to fall, others had but recently been broken off, whilst on the ground lay many rolled about to a greater or less degree of sphericity. As the path led round the extremity of the headland, two parallel lines of rock in crystallized blocks, as level and as regular as a tiled footway, ran out for some hundreds of yards into the sea. It was the Giant's Causeway on a larger scale. These long and shapely roads, that almost joined the point on which we stood to another promontory in front of us, were just the edges of strata tilted up from where the sea now flows, and inclining towards the land. On our right or inshore hand great sandstone cliffs towered above us. Superimposed on these was a line of perpendicular coralline limestone, edged at the summit with shrubs and creepers, and presenting, with its buttressed projections, and grey and hoary surface, the appearance of an old castle wall. Indeed, so closely in this did nature resemble art, that we were forced to make a close inspection before we could get rid of the idea that we were actually passing beneath ruined walls. The flowers had followed us still. The giant convolvulus still shone upon the prominences and projections of the cliffs; and the snowy lily grew boldly in clumps far out on the rocks towards the sea.

More rice-fields filled up a narrow plain which succeeded to the cliffs. Then the straggling houses and vegetable gardens of a small village built by the seaside appeared. The houses came down close to the edge of a snug and picturesque harbor, and many of them stood in the deep shadow of noble trees. Junks and cargo-boats were lying moored close to the shore, and a line of carriers was descending and ascending a steep hill-path, carrying loads to and from the craft below. We soon came upon symptoms of a coal-mining neighborhood. Heaps of coal, and great masses of "slack" and refuse formed a background to the village between the houses and the surrounding hills. The carriers, who went and came in an endless procession, were bearing baskets of the black mineral, slung from a pole across their shoulders. The bright verdure, the luxuriant tropical shrubs, the smooth sandy beach was soiled by the foul dust from the black heaps that were piled up beneath the hill.

We ascended the path, which was so steep that we almost had to climb. The carriers, nevertheless, came down it fearlessly and with sure foot in spite of their heavy loads. At the summit we saw that the path dropped into a valley, which it crossed between wet rice-fields, and then again mounted a ridge on the other side. This we found, as we went on, was repeated over and over again. In some places so precipitous was the way, that steps were cut in the soft sandstone of the hill-side to facilitate the ascent. We encountered still an unbroken stream of carriers with their loads; though diverging paths showed that they came from mines in different quarters.

These continuously succeeding valleys revealed the volcanic nature of the formation, and were evidences of violent convulsions. There was a certain sameness in the features of many. The sides were abrupt, seldom rising above four hundred feet in height; the surrounding ridges were sharp and with a broken sky-line, and the low ground was a kind of floor, flat and level throughout. Yet they were sufficiently unlike to give, as we ascended ridge after ridge, a succession of changing views. The aspect of all was extremely picturesque. The level rice-fields with their emerald-hued plants lay like a brilliant carpet beneath our feet. At one side ran a purling brook, whose murmurs struck softly on the ear. Trees and shrubs of various tints clad the hillsides, while patches of bamboo added further variegation to the foliage, and decked the outline of the heights with groups of graceful forms. The giant convolvulus still clung to the banks and thicker clumps of shrubs; but a brilliant scarlet lily replaced the delicate white one of the seashore. Closer inspection was often disappointing. In the rice-fields, wallowing on hands and knees, and kneading the liquid mud about the plants, were Chinese peasants engaged in the revolting rice-culture. By the side of the streams were huge heaps of refuse coal, which stained the waters to dinginess. The tropical* air was warm and moist, and fragments of cloud hung about the higher peaks around us. At first sight these valleys reminded us of sunken craters, such as Agnano, near Naples, or still more the picturesque peninsula of Uruga in Japan. Perhaps there is almost sacrilege in the latter comparison, for in that lonely land, if anywhere, are

* The tropic of Cancer crosses the island of Formosa.

More pellucid streams,
An ampler ether, a diviner air,
And fields invested with purpureal gleams.*

The road of the coal-carriers was long and troublesome. Carrying a heavy load for at least four miles, as those who came from some of the mines were doing, up and down steep hills in such an atmosphere and such a temperature, must have been superlatively distressing. Many of them bore a forked stick on which they rested at their halts — the pole to which their coal-baskets were slung. These halts were, however, infrequent. Here and there in some sequestered nook, some umbrageous fold in the hillside, an enterprising Chinaman had established a little tea-house, and in front of it a knot of carriers stopped to refresh themselves. Elsewhere there were stalls beneath an awning of mats for the sale of sweetmeats, or bits of sugarcane.

The mines were worked in a most primitive fashion. A hole, not much bigger than would be necessary to admit one person, was dug horizontally into the side of the steep face of a hill. Into this a miner carried a shallow flexible basket, and when he had scraped it full, he dragged it out with a rope, and transferred its contents to the two baskets which the carriers use. The coal was of two descriptions; a lustrous, black, bituminous sort, and a brittle, dull, yellow kind which came out in small lumps, and abounded in sulphur and iron pyrites. The slack and refuse was cast forth from the pit's mouth to lie where it might. By this rude method of raising it a considerable quantity of the mineral is brought into the market. It is believed that as much as ten thousand tons have been raised in a single year. A rude estimate of the capabilities of the present mines, as now worked, fixes the possible out-put at one hundred tons a-day, the actual amount being assumed on fairly good data, as one thousand *piculs*, or about half. The great customers of the Kelung miners are the factories and furnaces of the Chinese naval arsenal near Foo-Chow. A considerable quantity also is exported in junks, for household use, at other ports in China. The government has at length become alive to the important source of wealth which lies hidden in the coal-fields of northern Formosa. Four English miners arrived just before my

visit to the island, to instruct the native colliers, and an engineer, who had already inspected the mines, was in England purchasing the requisite machinery for mining on Chinese government account. The local officials had issued a proclamation desiring the inhabitants to treat the foreigners with civility; a mandate which, in the case of a casual visitor — judging only from my own experience — was quite uncalled for. The same authority has also intimated that the government only proposes to open new mines, and not in any way to interfere with the working of those previously dug.

This will undoubtedly very considerably modify the position of the aboriginal savages of Formosa. The increase of the commercial importance of Kelung will mean the extension of Chinese occupation along the eastern coast. Already, thanks to the action of the Japanese government, which nearly caused a war between it and that of China, a Chinese garrison is stationed at Sauo Bay, some way south of Kelung harbor. In a few years, probably, these wild tribes, who have so long preserved a primeval barbarism on the very borders of a most ancient civilization, will be surrounded by patient and industrious Chinamen, cut off from the sea, and driven to the mountains of the interior, there to disappear before the Mongolian race, as the red men have before the Anglo-Saxon.

At the foot of a high hill, far up on the sides of which yawned the black mouths of two coal-pits, out of and into which an ant-like stream of miners and carriers unceasingly swarmed, stood a little hamlet of tea-houses, rice-planters' cottages, and a blacksmith's shop. Above it rose a smooth, grassy eminence, which broadened at the summit to an open down. A fair extent of green sward, placed thus amidst the dense foliage of the neighboring hills, heightened considerably the beauty of the landscape. In front of the village ran a little stream, across which was thrown a frail bridge of a single plank, a giddy passage for the laden carriers from the mines. A few huge water buffaloes were feeding in the valley, and the green sward was dotted with swine and goats browsing on the shrubs. A wide plantation of bamboo waved in feathery masses on an opposite height, and hedges of the screw-pine fenced the village gardens behind the houses. Up the face of the green hillock, behind the village, ran our road to the town of Kelung, which the rising temperature warned us it was time to gain.

From the higher ground we caught

* These lines of Wordsworth (*Protesilaus'* description of the Elysian Fields) are not inappropriate in a reference to the lovely part of Japan alluded to, near Yokosuka and Kanasawa, as the district goes by the name of the "Plains of Heaven."

glimpses of distant peaks, and of valleys carpeted with the growing rice. The way, which hitherto had too often been but a mere track upon the summit of a narrow dyke between water-covered fields, was now along a well-made *chaussée*, neatly paved with stones. It led us beneath jutting crags and eminences crowned with shady copses, and by the side of a swiftly running stream. Occasionally it dipped down into a narrow ravine, or wound gradually up a steep ascent. At length we descended into an extensive plain; through it flowed the stream we had so long followed, broad and sluggish as a canal. By this stream much of the produce of the mines is brought into the town, and at the head of the navigation lay a small fleet of boats, deep with their sombre cargo. Its banks were so smooth and regular that it had evidently been "canalized" by the industrious people whose patient toil has converted the surrounding country into a garden. An opening in the ridge that seemed to block up the end of the valley enabled us to see the masts of the junks lying in the shallow harbor, and the trees and houses of Kelung. As we approached the town we walked by primly cultivated gardens, and past snug homesteads, embowered in trees. We met strings of people carrying back their purchases from the town, and now and then we came upon a gaudily painted sedan-chair borne by two men and carrying a small-footed woman. A little colony of boat-builders occupied a convenient creek just without the town wall, which was visible on our left. Above it showed the fantastic gables and tawdry ornaments of a large joss-house, or temple, the most conspicuous building in the place. A sharp turn to the right brought us past the end of a long bridge, thrown across the stream just before it falls into the harbor, and to the low wicket gate which formed the entrance to Kelung. Arrived within it, we found ourselves once more amidst the horrors of Chinese streets.

We had yet to go a mile farther, and were glad to hail a *sampan* and complete our journey by water instead of threading the filthy labyrinths of the town. We dropped down quietly in our little boats, sculled by a single boatman, past a long line of junks loading and discharging cargo, and landed beneath the ruins of a fort on a low promontory at the custom-house quay. A row of neat bungalows and a tall white flagstaff, flying the dragon-flag, belonged to the Imperial Maritime Customs, one of the institutions of New China

which tends perhaps more than any other to bring her within the family of nations. Immediately opposite was a large building with a high-pitched, matted roof, in which was stored the salt belonging to the mandarins, its sale being a government monopoly in China. So that, separated by a narrow strip of water, stood face to face symbols of the two methods, which perhaps will soon strive in China for the mastery, — restriction and freedom, the ancient and the new.

CYPRIAN A. G. BRIDGE.

From The Spectator.
THE SWARMING OF MANKIND.

A PARAGRAPH has been going the round of the papers this week showing that the population of France does not increase, while the populations of Germany and England do, and thereupon have been based a new series of glorifications of the two branches of the Teutonic stock, which are visibly taking possession of the world, and will before long make it a place too tiresome to live in. The boasting is not unnatural, for every race likes to think the future belongs to it; but it is becoming a little wearisome, and the boosters in their vainglory are becoming a little too contemptuous of all but momentary facts. They will have it that the French cannot colonize — because Frenchmen, being now contented at home, choose to stay there, rather than "fight the wilderness" as people in London, who appeal to the magistrates because cocks crow, think it the bounden duty of Frenchmen to do — and forget that the only colony which Frenchmen, as distinct from the French government, ever seriously attempted to found has been a perfect success, has lasted a hundred years, has remained intensely French — though French of the pre-Revolutionary type — and has alone among foreign communities resisted successfully the absorbent influence of the dominant Anglo-Saxon race. The French settled in Canada formed one of the happiest, best-ordered, and most peaceful communities in the world; and after a history of a hundred years and after suffering conquest by the English that community remains French, still unabsorbed, with a life and a society and a mental atmosphere all its own. Half-a-dozen French Canadas would, we admit, be better than one, but still the French established one which has not

died! The boasters assert that the Germans colonize, and forget that, like the Irish, they do nothing of the kind; never conquer, never "settle," never found, but simply "go abroad," to be absorbed into the new English-speaking race which is gradually filling up North America, and which may be destined, if the Chinese immigration does not interfere with the process, permanently to occupy the splendid spaciousness of that continent. The English, it is true, colonize, but the concurrent assumption that they will always go on colonizing, or indeed multiplying, is a mere assumption, without evidence in science and strongly against the evidence of history. They may, but also they may not, for if there is any historic subject upon which philosophers, historians, or savans are still profoundly ignorant, it is the law under which races increase, become stationary, or decrease in numbers. Some economists used to believe they had discovered a law, namely, that races increased under prosperity, that plenty of food meant plenty of population, that with manufactures States obtained more hands to work them; but it was entirely opposed to the facts of history, which show that one of the most miserable of earthly races — the Irish under the penal laws — multiplied like flies, while another race of the same blood, and under nearly the same conditions — the French peasantry under Louis XV. — were slowly perishing away. The negro slaves of the South, amid all their toil, and with all their poor food, increased faster than their masters. Statistics show that the English people in the western states of the Union tend always to increase, though the same people in the eastern states are dying slowly out; while a people as brave, as strong, and once as prosperous as they are, with lands as wide and far more fertile, with a history of conquest behind them, and everything to gain from the increase of their numbers, is stationary everywhere, and in some places slowly receding. If there is a law proportioning population to means of subsistence, why do not the Spaniards and Portuguese, who still own wider and fairer territories than we English, fill them up with population; while Mongolians increase till China cannot contain them, and Bengalees multiply under foreign domination until the problem of feeding them is studied as one of the gravest of the future? The fierce, beef-fed islanders of whom Froissart wrote were as well off as ever Englishmen have been, as well off as Ohio citizens are now, yet the population of Britain increased

almost imperceptibly, while in Ohio the same race advances now by leaps and bounds. To talk of epidemics is useless, for it only pushes back the question one step, the secret of liability to epidemics being but one of the secrets of increase or decrease of population.

Indeed it is very doubtful if prosperity or the provision of means of subsistence is the ultimate cause of increase of population, for the upper classes die out sooner than the lower, and one main difficulty of civilization is to keep culture sufficiently hereditary. After a thousand years of feudalism, the "noble" classes of France were ascertained, says De Tocqueville, when the Revolution broke out, not to reach two hundred thousand in number; while the patriciat of Rome, the best-off class that ever existed, died completely out. If the explanation is health, why does not the Jewish race, which has had nearly two thousand years in which to spread abroad, which thrives in all climates and under all conditions, which suffers less than any from epidemics, and which three thousand years ago established a sanitary code, number two hundred millions, as, had they been Englishmen, they would have done? They were oppressed? Yes, and so were the Irish, and so are the Chinese and the Bengalees, with at least as grievous an oppression, different as it may be in kind. Why do not the well-to-do, brave, and physically powerful Parsees show any tendency to regain the numbers they possessed before the Mussulmans so nearly extirpated them? If the secret is race, why did the Greek people, after swarming over the islands and Asia Minor and Egypt, leave off spreading and become stationary? Nobody is oppressing Greeks in Greece, and yet Greece is not filled up. *Why* is not an island like Samos eaten up, as Ireland was, by its own children? "Peasant-proprietorship," answers the *Times*, which, with equal division of property, always tends to keep down the number of a population afraid to become too poor. Very good; that is definite and intelligible; but will the *Times* just explain why those other peasant-proprietors, the majority of men in the United States, do not die out, while their rivals, the Spaniards in South America do; or why Bengalees, every one of whom is a peasant-proprietor living under the most peremptory law of equal division of property, are becoming too numerous for their land? It is all climate? Very good, but which climate breeds large races? We English grow and grow in the north, and

the Bengalees grow and grow in the south, and Provençals do not grow in their lovely land, and Italians grow slowly in their equally lovely one, and the Spaniards in Chili, which is Italy over again, are nearly stationary; while the Irish, in their cold, humid country, grow too fast, till nature avenged herself in a frightful famine. Why does not a race like the Dutch, which can colonize, and fight, and sail ships, and blunder about the world just as we and the Germans do, grow out of its dykes, as either of the kindred families would? There is no room? There is endless room in Scandinavia and Holstein, and the Scandinavians and Holsteiners, who once settled here and in America have grown to seventy millions, in their own territories scarcely grow at all. Is it religion? Well, the five most rapidly increasing races are the English Protestants, the Irish Catholics, the German Freethinkers, the Bengalee idolaters, and the Chinese worshippers of the Manchester ideas. Is it virtue? Chinese swarm, and Puritans decay. Is it energy, the extraordinary force which appears in each race at some moments of its history, and after a longer or shorter period dies out? Well, there is something to be said for that solution, vague and indefinite as it is. The great period of some races, as the Roman, the Spanish, the Arab, has been synchronous with their swarming period; but still that does not explain facts like the population of Ireland, or the increase of the negroes in slavery, or the advance of the Bengalees, or the swarming-out of the Chinese everywhere, or, above all, the increase believed, on strong evidence, to be occurring among the Slavons. The French must have increased once, why not again? The English population fell back once, why not again? The circumstances of, say, Michigan, are said to be so fortunate that the filling-up of Michigan without immigration would cause no surprise; but why should Michigan fill faster than the South-African settlements, which fill so slowly that after Europe has possessed them for a hundred years, it is doubtful whether tribes in nothing raised above the red Indians, and in religion decidedly below them, may not eat up the white man after all? The plain truth of the matter is that we have not discovered the law on which the increase and decrease of the races of man depends, and that therefore all these hymns now sung over our colonizing capacity, and these rather exulting dirges over the decay of France, may be caused by move-

ments which in the long life of nations must be pronounced only momentary. Numbers for numbers, the Portuguese did more to colonize the world than we have done, and took up a higher position in it, and except when she worries us by claiming some South-African port, or some West-African slave-trader, who thinks of Portugal now?

From The Saturday Review.

THE LIMITS OF FICTION.

It is a sudden transition to pass from the novel as it was left by Sterne to its latest development in the work of a writer like George Eliot. The distance is almost too great to be spanned by a single term of art. In such a novel as "*Romola*" the limits of prose fiction may be said to be reached. We do not speak now of the merit of the book judged by the standard it creates, nor of the individual genius of its author; we are concerned at the moment only with the scope of its attempt. The writer of prose fiction has here entered into rivalry with the poetic dramatist. Still retaining the machinery of the novel, with its faithful record of the actual progress of life, and its method of grouping together petty occurrences and small passions, the novelist now seeks to fathom the profoundest problems of the soul. Fiction is no longer content to picture manners, or to stop short at an understanding of the vices and virtues that float to the surface of common life. Accepting the title and the duties of an artist, the novel-writer has become at each step more ambitious in his desire for profound truth and more eager to treat of an ideal existence. All that he now claims in distinction from the poet is greater freedom in the methods of workmanship. He will deal with motives and passions that are of poetic height and grandeur, but he will take the liberty of revealing these motives and passions by a machinery more minute in its working than the poet is permitted to use. He keeps in this way the earlier function of the novelist—to record the common every-day routine of life—and, in addition, he uses his right of trivial description to aid the expression of the deepest thoughts and emotions. To laugh at the follies of society or to ridicule its petty vices no longer survives as the main purpose of the writer of fiction. His work now claims to be judged by the rules applicable to the judgment of a great poem or

a great picture; it stands or falls by its purely artistic value. The earlier ambition of the novelist to be a deliberate satirist of manners may be said to have found its last considerable expression in "Vanity Fair." Since then, even in Thackeray's own works, and more decidedly in the works of others, all that is merely satirical has held a subordinate place. Manners are painted, but without regard to their folly or their fitness, their value to the author consisting solely in the means they afford of expressing character or emotion. The strict localization of the scene, which was at first only tentatively employed, is now diligently studied. To each person of the drama is given his appropriate setting, and even his particular costume is not thought unworthy of description. And these principles of workmanship are combined with a largeness of design that will more than bear comparison with any of the works where a broader method of treatment was employed.

It must be remembered in considering the two schools of fiction that the poetry of the last century approached very near to the region of prose. What was attempted by the satiric and moral verse of the time in exposing the vices of society could be done more fully, if not so finely, by prose, and there was no wrongful encroachment upon alien soil when the novelist undertook to perform work which poetry could very well leave undone. But the level that existed then between these two branches of art could not always be maintained on the same terms. Poetry has had a new birth and has learned a higher flight since the last century, and it by no means follows that prose fiction will be able to fill the enlarged domain. The question will arise whether in such a work as "Romola" the limits of the art are not overstepped? We may be inclined to ask whether the profoundest problems of character can be fitly treated by artists who have hitherto accepted cheerfully the lesser duty of picturing manners. To some it will seem that the novel is unduly weighted by its new burdens, and that its machinery is not the best for the lately chosen task. Poetry, with its right to select the supreme moments of life, and to suggest by its mode of expression the harmony it seeks to find in human action, can do with ease what prose only laboriously attempts. The poet is not fettered by the need of a precise portraiture of vestments as well as

of the individualities they clothe. He can neglect the manners which form the material of the novelist, and transport each character at once to an ideal world with only so much surrounding of circumstances as may assist the expression of the highest truth. But the point specially to be noted is that this enlargement of the general scope of the novel has been accompanied by an increasing regard for exactness in detail. In the novel of Fielding or Smollett the action never passes out of the region of comedy. The ills described are never such as the climax may not cure, and the characters, although very human in their constant frailty, are not penetrated by any very profound human emotion. The imagination scarcely entered into the work in the sense in which it is now used by the most gifted writers of fiction, and yet the treatment is always broad and bold as compared with the minute and careful style that is now practised. The secret of this later method is to be found, as we have hinted, in the novel of Sterne. He was the first to anticipate the modern manner of intense and watchful portraiture, and to seek for the larger meaning of art by a perfect embodiment of the individual. In "Tristram Shandy" we find a deliberate attempt to reproduce the drama of every-day life. The dialogue is no longer a mere reflex of the artificial utterances of the theatre; it is an exact and faithful imitation of common speech. Much that is extravagant does not destroy the value of the quiet scenes wherein the characters are revealed. Social failings do not occupy the same importance as in the works of Fielding, and, although the tendency to discursiveness is certainly not less, we are conscious throughout that the author's supreme motive is to reveal, and to leave with us, perfect portraits of his creations. And this also is the desire of the modern novelist. He rejects the temper and manner of the satirist, for he is not so much concerned to castigate folly as to present certain individual portraits, and to this end he records with anxious particularity whatever may give vividness and truth to the picture. The wider significance of fiction, which in Fielding's art was obtained by the exercise of satiric power employed upon rich resources of observation, is now seldom sought and still more seldom found. In the highest development of modern fiction this larger meaning is gained by a study of the problems hitherto reserved for poetry.



